



RUBRIQUE 1: IDENTIFICATION DE LA SUBSTANCE/DU MÉLANGE ET DE LA SOCIÉTÉ/L'ENTREPRISE

1.1 Identificateur de produit: 900960 - ACEITE PHARMA...

Huile minérale blanche, <=20,5mm²/s (40°C)
CAS: 8042-47-5
EC: 232-455-8
Index: Non concerné
REACH: 01-2119487078-27-XXXX

Autres moyens d'identification:

P-9569 [900960] ACEITE PHARMA LIGERO
P-22280 [904337] ACEITE PHARMA LIGERO BA
P-1498 [900264] ACEITE BLANCO PHARMA 7080
P-19890 [903272] ACEITE MED. LIG. ORDESA

1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées:

Utilisations identifiées pertinentes: Huiles

Utilisations industrielles:

Fabrication de la substance.

Utilisation de la substance comme intermédiaire.

Distribution de la substance.

Formulation et reconditionnement de substances et mélanges.

Utilisation dans les revêtements.

Utilisation dans les agents de nettoyage.

Utilisation dans les liquides de travail des métaux / huiles de stratification.

Utiliser comme agent de démoulage ou liant.

Production et transformation du caoutchouc.

Utilisation dans le traitement des polymères.

Lubrifiants

Utilisation en laboratoire.

Utilisation dans les produits chimiques de traitement de l'eau.

Utiliser comme liquides fonctionnels.

Utilisations professionnelles:

Utilisation dans les revêtements.

Utilisation dans les agents de nettoyage.

Utilisation dans les liquides de travail des métaux / huiles de stratification.

Utiliser comme agent de démoulage ou liant.

Utilisation en agrochimie.

Lubrifiant (émission haute et basse).

Utilisation en laboratoire.

Utilisation dans les produits chimiques de traitement de l'eau.

Fabrication d'explosifs.

Utiliser comme liquides fonctionnels.

Utilisations des consommateurs:

Utilisation dans les revêtements.

Utilisation dans les agents de nettoyage.

Utilisation dans les liquides de travail des métaux / huiles de stratification.

Utilisation en agrochimie.

Utiliser comme carburant.

Lubrifiant (émission haute et basse).

Autres utilisations: SU21, PROC 28, PROC 29.

Utilisations déconseillées: Toute utilisation non spécifiée dans cette section ou dans la sous-rubrique 7.3

1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité:

Quimidroga S.A.

C/ Tuset, 26

08006 Barcelona - Spain

Tél.: +34 932363636 - Fax: +34 934154880

msds@quimidroga.com

www.quimidroga.com

1.4 Numéro d'appel d'urgence: +34 932363636 (24h)

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RUBRIQUE 2: IDENTIFICATION DES DANGERS

2.1 Classification de la substance ou du mélange:

Règlement n° 1272/2008 (CLP) :

La classification de ce produit a été réalisée conformément au Règlement n° 1272/2008 (CLP).

Asp. Tox. 1: Danger par aspiration, Catégorie 1, H304

2.2 Éléments d'étiquetage:

Règlement n° 1272/2008 (CLP) :

Danger



Indications de danger:

Asp. Tox. 1: H304 - Peut être mortel en cas d'ingestion et de pénétration dans les voies respiratoires.

Conseils de prudence:

P102: Tenir hors de portée des enfants.

P301+P310: EN CAS D'INGESTION: Appeler immédiatement un CENTRE ANTIPOISON/un médecin.

P331: NE PAS faire vomir.

P405: Garder sous clef.

P501: Éliminer le contenu et / ou son récipient à travers le système de collecte sélective activé dans votre commune.

2.3 Autres dangers:

Le produit ne répond pas aux critères des substances persistantes, bioaccumulables et toxiques (PBT) / des substances très persistantes et très bioaccumulables (vPvB)

Le produit ne répond pas aux critères relatifs aux propriétés de perturbation endocrinienne.

RUBRIQUE 3: COMPOSITION/INFORMATIONS SUR LES COMPOSANTS

3.1 Substances:

Description chimique: Huile/s

Composants:

Conformément à l'Annexe II du Règlement (CE) n°1907/2006 (point 3), le produit contient:

Identification	Nom chimique /classification	Concentration
CAS: 8042-47-5 EC: 232-455-8 Index: Non concerné REACH: 01-2119487078-27-XXXX	Huile minérale blanche, <=20,5mm2/s (40°C) Règlement 1272/2008 Asp. Tox. 1: H304 - Danger	Auto classifiée 100 %

Pour plus d'informations sur les dangers du produit, voir les rubriques 11, 12 et 16.

3.2 Mélanges:

Non concerné

RUBRIQUE 4: PREMIERS SECOURS

4.1 Description des premiers secours:

Les symptômes résultant d'une intoxication peuvent survenir après l'exposition, raison pour laquelle, en cas de doute, toute exposition directe au produit chimique ou persistance de la gêne exige des soins médicaux, en fournissant la FDS du produit concerné.

Par inhalation:

Il s'agit d'un produit ne contenant pas de substances jugées dangereuses par inhalation, toutefois, en cas de symptômes d'intoxication, retirer la personne affectée de la zone d'exposition et lui fournir de l'air frais. Demander des soins médicaux si les symptômes s'aggravent ou persistent.

Par contact cutané:

En cas de contact, il est recommandé de rincer la zone affectée à l'eau claire et de nettoyer avec du savon neutre. En cas de manifestations cutanées (démangeaison, rougeur, éruptions cutanées, ampoules,...), consultez un médecin muni de la Fiche de Données de Sécurité.

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RUBRIQUE 4: PREMIERS SECOURS (suite)

Par contact avec les yeux:

Il s'agit d'un produit qui ne contient pas de substances classées dangereuses au contact avec les yeux. Rincer pendant au moins 15 minutes avec beaucoup d'eau à température ambiante, en évitant que la personne affectée se frotte ou ferme les yeux.

Par ingestion/aspiration:

Demander immédiatement des soins médicaux en fournissant la FDS du produit concerné. Ne pas provoquer de vomissement. En cas de vomissement, maintenir la tête penchée en avant pour éviter toute aspiration. En cas de perte de conscience, ne rien administrer par voie orale avant d'avoir obtenu l'avis d'un médecin. Rincer la bouche et la gorge, vu qu'il est possible qu'elles aient été touchées lors de l'ingestion. Maintenir la personne affectée au repos.

4.2 Principaux symptômes et effets, aigus et différés:

Les effets aigus et à retardement sont ceux signalés dans les rubriques 2 et 11.

4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires:

Pas pertinent

RUBRIQUE 5: MESURES DE LUTTE CONTRE L'INCENDIE

5.1 Moyens d'extinction:

Moyens d'extinction appropriés:

Utiliser de préférence des extincteurs à poudre polyvalente (poudre ABC), sinon utiliser des extincteurs à poudre physique ou à base de dioxyde de carbone (CO₂).

Moyens d'extinction inappropriés:

IL N'EST PAS RECOMMANDÉ d'utiliser des jets d'eau pour l'extinction.

5.2 Dangers particuliers résultant de la substance ou du mélange:

La réaction suite à la combustion ou décomposition thermique peut s'avérer très toxique et par conséquent, représenter un risque très élevé pour la santé.

5.3 Conseils aux pompiers:

En fonction de l'ampleur de l'incendie, il pourra être nécessaire de porter des vêtements de protection intégrale ainsi qu'un équipement respiratoire personnel. Disposer d'un minimum d'installations d'urgence ou d'éléments d'intervention (couvertures ignifuges, trousse à pharmacie...) selon la Directive 89/654/CE.

Dispositions supplémentaires:

Intervenir conformément au Plan d'Urgences Intérieur et aux Fiches d'information relatives aux interventions en cas d'accidents et autres urgences. Supprimer toute source d'ignition. En cas d'incendie, refroidir les containers de stockage des produits susceptibles de s'enflammer ou d'exploser en raison des températures élevées. Éviter le déversement des produits servant à éteindre l'incendie en milieu aquatique.

RUBRIQUE 6: MESURES À PRENDRE EN CAS DE DISPERSION ACCIDENTELLE

6.1 Précautions individuelles, équipement de protection et procédures d'urgence:

Pour les non-secouristes:

Isoler les fuites à condition qu'il n'y ait pas de risque supplémentaire pour les personnes en charge de cette tâche. En cas de contact potentiel avec le produit déversé, il est obligatoire de porter l'équipement de protection individuelle (Voir rubrique 8). Évacuer la zone et maintenir éloignées les personnes sans protection.

Pour les secouristes:

Porter un équipement de sécurité. Eloigner les personnes non protégées. Voir rubrique 8.

6.2 Précautions pour la protection de l'environnement:

Produit jugé non dangereux pour l'environnement. Éviter la contamination des égouts, des eaux de surface et des eaux souterraines.

6.3 Méthodes et matériel de confinement et de nettoyage:

Nous préconisons:

Absorber le déversement au moyen de sable ou d'un absorbant inerte et le mettre en lieu sûr. Ne pas absorber au moyen de sciure ou autres absorbants combustibles. Pour toute autre information relative à l'élimination, consulter la rubrique 13.

6.4 Référence à d'autres rubriques:

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RUBRIQUE 6: MESURES À PRENDRE EN CAS DE DISPERSION ACCIDENTELLE (suite)

Voir les rubriques 8 et 13.

RUBRIQUE 7: MANIPULATION ET STOCKAGE

7.1 Précautions à prendre pour une manipulation sans danger:

A.- Précautions pour une manipulation en toute sécurité

Respecter la législation en vigueur en matière de prévention des risques au travail concernant la manipulation des chargements à la main. Ordonner et ranger et procéder à l'élimination moyennant des méthodes sûres (chapitre 6).

B.- Recommandations techniques pour la prévention des incendies et des explosions.

Produit non inflammable dans des conditions normales de stockage, de manipulation et d'utilisation. Il est recommandé de procéder au transvasement lentement pour éviter de causer des décharges électrostatiques pouvant affecter les produits inflammables. Consulter la rubrique 10 concernant les conditions et les matières à éviter.

C.- Recommandations techniques pour la prévention des risques ergonomiques et toxicologiques.

Pour le contrôle de l'exposition, consulter la rubrique 8. Ne pas manger, boire et fumer dans les zones de travail; se laver les mains après chaque utilisation; enlever les vêtements et l'équipement de protection contaminés avant d'entrer dans une zone de restauration

D.- Recommandations techniques pour la prévention des risques environnementaux

Il est recommandé de disposer de matériel absorbant à proximité du produit (Voir sous-rubrique 6.3)

7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités:

A.- Mesures techniques de stockage

Stocker dans un endroit frais, sec et bien aéré

B.- Conditions générales de stockage

Éviter toutes sources de chaleur, radiation, électricité statique et tout contact avec des aliments. Pour obtenir des informations supplémentaires voir sous-rubrique 10.5

7.3 Utilisation(s) finale(s) particulière(s):

A l'exception des indications déjà spécifiées, il n'est pas nécessaire de suivre des recommandations spéciales concernant l'usage de ce produit.

RUBRIQUE 8: CONTRÔLES DE L'EXPOSITION/PROTECTION INDIVIDUELLE

8.1 Paramètres de contrôle:

Substances dont les valeurs limites d'exposition professionnelle doivent être contrôlées sur le lieu de travail:

Il n'existe pas de valeurs limites d'exposition pour les substances qui constituent le produit

DNEL (Travailleurs):

Identification		Courte exposition		Longue exposition	
		Systémique	Local	Systémique	Local
Huile minérale blanche, <=20,5mm2/s (40°C) CAS: 8042-47-5 EC: 232-455-8	Oral	Pas pertinent	Pas pertinent	Pas pertinent	Pas pertinent
	Cutanée	Pas pertinent	Pas pertinent	217,05 mg/kg	Pas pertinent
	Inhalation	Pas pertinent	Pas pertinent	164,56 mg/m ³	Pas pertinent

DNEL (Population):

Identification		Courte exposition		Longue exposition	
		Systémique	Local	Systémique	Local
Huile minérale blanche, <=20,5mm2/s (40°C) CAS: 8042-47-5 EC: 232-455-8	Oral	Pas pertinent	Pas pertinent	25 mg/kg	Pas pertinent
	Cutanée	Pas pertinent	Pas pertinent	93,02 mg/kg	Pas pertinent
	Inhalation	Pas pertinent	Pas pertinent	34,78 mg/m ³	Pas pertinent

PNEC:

Pas pertinent

8.2 Contrôles de l'exposition:

A.- Mesures de protection individuelle, telles que les équipements de protection individuelle

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RUBRIQUE 8: CONTRÔLES DE L'EXPOSITION/PROTECTION INDIVIDUELLE (suite)

À titre de mesure préventive, il est recommandé d'utiliser les équipements de protection individuelle basiques, avec le <marquage CE> correspondant. Pour plus de renseignements sur les équipements de protection individuelle (stockage, utilisation, nettoyage, entretien, type de protection,...) consulter la brochure d'informations fournie par le fabricant de l'EPI. Les indications formulées dans ce point concernent le produit pur. Les mesures de protection concernant le produit dilué pourront varier en fonction de son degré de dilution, de son utilisation, de la méthode d'application, etc. Pour déterminer l'obligation d'installer des douches de sécurité et/ou des rince-œil de secours dans les entrepôts, respecter la réglementation concernant le stockage de produits chimiques applicable dans chaque cas. Pour plus de renseignements, se référer aux sous-rubriques 7.1 et 7.2. Toute l'information contenue ici est une recommandation qui nécessite une spécification de la part des services de prévention des risques au travail, si la société dispose de mesures supplémentaires.

B.- Protection respiratoire.

L'utilisation d'équipements de protection sera nécessaire en cas de formation de brouillard ou dans le cas où la limite d'exposition professionnelle serait dépassée.

C.- Protection spécifique pour les mains.

Pictogramme	PPE	Marquage	normes ECN	Observations
Protection des mains obligatoire	Gants de protection contre les risques mineurs	CE CAT I		Remplacer les gants en cas de détérioration. Pour les périodes d'exposition prolongées du produit, il est recommandé aux utilisateurs professionnels/industriels d'utiliser des gants CE III, conformément aux normes EN 420 et EN 374

D.- Protection du visage et des yeux

Pictogramme	PPE	Marquage	normes ECN	Observations
Protection du visage obligatoire	Lunettes panoramiques contre les éclaboussures/projections	CE CAT II	EN 166:2002 EN ISO 4007:2018	Nettoyer quotidiennement et désinfecter régulièrement en suivant les instructions du fabricant. À utiliser s'il y a un risque d'éclaboussements.

E.- Protection du corps

Pictogramme	PPE	Marquage	normes ECN	Observations
	Vêtements de travail	CE CAT I		Remplacer en cas de signe de détérioration. Pour les périodes prolongées d'exposition au produit par des utilisateurs professionnels/industriels, il est recommandé d'utiliser CE III, conformément aux normes EN ISO 6529:2001, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994
	Chaussures de travail antidérapantes	CE CAT II	EN ISO 20347:2012	Remplacer en cas de signe de détérioration. Pour les périodes prolongées d'exposition au produit par des utilisateurs professionnels/industriels, il est recommandé d'utiliser CE III, conformément aux normes EN ISO 20345 et EN 13832-1

F.- Mesures complémentaires d'urgence

Mesure d'urgence	normes	Mesure d'urgence	normes
Douche d'urgence	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	Rincer œil	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Contrôles d'exposition liés à la protection de l'environnement:

En vertu de la législation communautaire sur la protection environnementale, il est recommandé d'éviter tout déversement du produit mais aussi de son emballage dans l'environnement. Pour obtenir des informations supplémentaires voir sous-rubrique 7.1.D

Composés organiques volatiles:

Conformément à l'application de la Directive 2010/75/EU, ce produit offre les caractéristiques suivantes:

C.O.V. (2010/75/UE):	0 % poids
Concentration de C.O.V. à 20 °C:	0 kg/m ³ (0 g/L)
Nombre moyen de carbone:	Pas pertinent
Poids moléculaire moyen:	Pas pertinent

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**RUBRIQUE 9: PROPRIÉTÉS PHYSIQUES ET CHIMIQUES****9.1 Informations sur les propriétés physiques et chimiques essentielles:**

Pour plus d'informations voir la fiche technique du produit.

Aspect physique:

État physique à 20 °C:	Liquide
Aspect:	Non disponible
Couleur:	Non disponible
Odeur:	Non disponible
Seuil olfactif:	Pas pertinent *

Volatilité:

Température d'ébullition à pression atmosphérique:	218 - 800 °C
Pression de vapeur à 20 °C:	1,242E-1 Pa
Pression de vapeur à 50 °C:	Pas pertinent *
Taux d'évaporation à 20 °C:	Pas pertinent *

Caractéristiques du produit:

Masse volumique à 20 °C:	Pas pertinent *
Densité relative à 20 °C:	Pas pertinent *
Viscosité dynamique à 20 °C:	Pas pertinent *
Viscosité cinématique à 20 °C:	Pas pertinent *
Viscosité cinématique à 40 °C:	>3 mm ² /s
Concentration:	Pas pertinent *
pH:	Pas pertinent *
Densité de vapeur à 20 °C:	Pas pertinent *
Coefficient de partage n-octanol/eau à 20 °C:	Pas pertinent *
Solubilité dans l'eau à 20 °C:	Pas pertinent *
Propriété de solubilité:	Pas pertinent *
Température de décomposition:	Pas pertinent *
Point de fusion/point de congélation:	-60 - 0 °C

Inflammabilité:

Point d'éclair:	>112 °C
Inflammabilité (solide, gaz):	Pas pertinent *
Température d'auto-ignition:	325 - 355 °C
Limite d'inflammabilité inférieure:	Pas pertinent *
Limite d'inflammabilité supérieure:	Pas pertinent *

Caractéristiques des particules:

Diamètre équivalent médian:	Non concerné
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9.2 Autres informations:**Informations concernant les classes de danger physique:**

Propriétés explosives:	Pas pertinent *
Propriétés comburantes:	Pas pertinent *
Substances ou mélanges corrosifs pour les métaux:	Pas pertinent *
Chaleur de combustion:	Pas pertinent *
Aérosols-pourcentage total suivant (en masse) de composants inflammables:	Pas pertinent *

Autres caractéristiques de sécurité:

*Non applicable en raison de la nature du produit / non déterminant pour les propriétés de danger du produit

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RUBRIQUE 9: PROPRIÉTÉS PHYSIQUES ET CHIMIQUES (suite)

Tension superficielle à 20 °C: Pas pertinent *
Indice de réfraction: Pas pertinent *

*Non applicable en raison de la nature du produit / non déterminant pour les propriétés de danger du produit

RUBRIQUE 10: STABILITÉ ET RÉACTIVITÉ

10.1 Réactivité:

Aucune réaction dangereuse attendue dans les conditions normales de stockage, manipulation et utilisation. Voir la rubrique 7.

10.2 Stabilité chimique:

Chimiquement stable dans les conditions indiquées de stockage, manipulation et utilisation.

10.3 Possibilité de réactions dangereuses:

En conditions normales, pas de réactions dangereuses susceptibles de produire une pression ou des températures excessives.

10.4 Conditions à éviter:

Applicables pour manipulation et stockage à température ambiante :

Choc et friction	Contact avec l'air	Échauffement	Lumière Solaire	Humidité
Non applicable	Non applicable	Non applicable	Non applicable	Non applicable

10.5 Matières incompatibles:

Acides	Eau	Matières comburantes	Matières combustibles	Autres
Éviter les acides forts	Non applicable	Non applicable	Non applicable	Éviter les alcalins ou les bases fortes

10.6 Produits de décomposition dangereux:

Voir sous-rubriques 10.3, 10.4 et 10.5 pour connaître précisément les produits de décomposition. En fonction des conditions de décomposition et à l'issue de cette dernière, certains mélanges complexes à base de substances chimiques peuvent se dégager: dioxyde de carbone (CO₂), monoxyde de carbone et autres composés organiques.

RUBRIQUE 11: INFORMATIONS TOXICOLOGIQUES

11.1 Informations sur les classes de danger telles que définies dans le règlement (CE) no 1272/2008:

Effets dangereux pour la santé:

En cas d'exposition répétée, prolongée ou de concentrations supérieures à celles qui sont établies par les limites d'exposition professionnelles, des effets néfastes pour la santé peuvent survenir selon le mode d'exposition :

A- Ingestion (effets aigus):

- Toxicité aiguë: Compte tenu des données disponibles, les critères de classification ne sont pas remplis, car le produit ne contient pas de substances jugées dangereuses par ingestion. Pour plus d'information, voir rubrique 3.
- Corrosivité/irritabilité: Compte tenu des données disponibles, les critères de classification ne sont pas remplis, car le produit ne contient pas de substances jugées dangereuses dans ce cadre. Pour plus de renseignements, se référer à la rubrique 3.

B- Inhalation (effets aigus):

- Toxicité aiguë: Compte tenu des données disponibles, les critères de classification ne sont pas remplis, car le produit ne contient pas de substances jugées dangereuses par inhalation. Pour plus d'information, voir rubrique 3.
- Corrosivité/irritabilité: Compte tenu des données disponibles, les critères de classification ne sont pas remplis, car le produit ne contient pas de substances jugées dangereuses dans ce cadre. Pour plus de renseignements, se référer à la rubrique 3.

C- Contact avec la peau et les yeux (effets aigus):

- Contact avec la peau: Compte tenu des données disponibles, les critères de classification ne sont pas remplis, et ne contiennent pas de substances jugées dangereuses au vu des effets décrits. Pour plus d'information, voir rubrique 3.
- Contact avec les yeux: Compte tenu des données disponibles, les critères de classification ne sont pas remplis, car le produit ne contient pas de substances jugées dangereuses dans ce cadre. Pour plus de renseignements, se référer à la rubrique 3.

D- Effets CMR (carcinogénicité, mutagénicité et toxicité pour la reproduction):

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RUBRIQUE 11: INFORMATIONS TOXICOLOGIQUES (suite)

- Carcinogénicité: Compte tenu des données disponibles, les critères de classification ne sont pas remplis, car le produit ne contient pas de substances jugées dangereuses au vu des effets décrits. Pour plus d'information, voir rubrique 3.
IARC: Huile minérale blanche, <=20,5mm2/s (40°C) (3)
- Mutagénicité: Compte tenu des données disponibles, les critères de classification ne sont pas remplis, car le produit ne contient pas de substances jugées dangereuses dans ce cadre. Pour plus de renseignements, se référer à la rubrique 3.
- Toxicité sur la reproduction: Compte tenu des données disponibles, les critères de classification ne sont pas remplis, car le produit ne contient pas de substances jugées dangereuses dans ce cadre. Pour plus de renseignements, se référer à la rubrique 3.

E- Effets de sensibilisation:

- Respiratoire: Compte tenu des données disponibles, les critères de classification ne sont pas remplis, car le produit ne contient pas de substances jugées dangereuses à effets sensibilisants. Pour plus d'information, voir rubrique 3.
- Cutané: Compte tenu des données disponibles, les critères de classification ne sont pas remplis, car le produit ne contient pas de substances jugées dangereuses dans ce cadre. Pour plus de renseignements, se référer à la rubrique 3.

F- Toxicité pour certains organes cibles (STOT)-temps d'exposition:

Compte tenu des données disponibles, les critères de classification ne sont pas remplis, car le produit ne contient pas de substances jugées dangereuses dans ce cadre. Pour plus de renseignements, se référer à la rubrique 3.

G- Toxicité pour certains organes cibles (STOT)-exposition répétée:

- Toxicité pour certains organes cibles (STOT)-exposition répétée: Compte tenu des données disponibles, les critères de classification ne sont pas remplis, car le produit ne contient pas de substances jugées dangereuses dans ce cadre. Pour plus de renseignements, se référer à la rubrique 3.
- Peau: Compte tenu des données disponibles, les critères de classification ne sont pas remplis, car le produit ne contient pas de substances jugées dangereuses dans ce cadre. Pour plus de renseignements, se référer à la rubrique 3.

H- Danger par aspiration:

L'ingestion d'une forte dose peut provoquer des complications pulmonaires.

Autres informations:

Pas pertinent

Information toxicologique spécifique produit:

Toxicité sévère		Genre
DL50 orale	>5000 mg/kg	Rat

Information toxicologique spécifique des substances:

Identification	Toxicité sévère		Genre
Huile minérale blanche, <=20,5mm2/s (40°C) CAS: 8042-47-5 EC: 232-455-8	DL50 orale	>5000 mg/kg	Rat
	DL50 cutanée	>2000 mg/kg	
	CL50 inhalation	>20 mg/L	

11.2 Informations sur les autres dangers:

Propriétés perturbant le système endocrinien

Le produit ne répond pas aux critères relatifs aux propriétés de perturbation endocrinienne.

Autres informations

Pas pertinent

RUBRIQUE 12: INFORMATION ÉCOLOGIQUE

12.1 Toxicité:

Non disponible

12.2 Persistance et dégradabilité:

Non disponible

12.3 Potentiel de bioaccumulation:

Non disponible

12.4 Mobilité dans le sol:

Non disponible

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RUBRIQUE 12: INFORMATION ÉCOLOGIQUE (suite)

12.5 Résultats des évaluations PBT et VPVB:

Le produit ne répond pas aux critères des substances persistantes, bioaccumulables et toxiques (PBT) / des substances très persistantes et très bioaccumulables (vPvB)

12.6 Propriétés perturbant le système endocrinien:

Le produit ne répond pas aux critères relatifs aux propriétés de perturbation endocrinienne.

12.7 Autres effets néfastes:

Non décrits

RUBRIQUE 13: CONSIDÉRATIONS RELATIVES À L'ÉLIMINATION

13.1 Méthodes de traitement des déchets:

Code	Description	Type de déchet (Règlement (UE) n°1357/2014)
13 08 99*	déchets non spécifiés ailleurs	Dangereux

Type de déchets (Règlement (UE) n°1357/2014):

HP5 Toxicité spécifique pour un organe cible (STOT)/toxicité par aspiration

Gestion du déchet (élimination et évaluation):

Consulter le responsable des déchets compétent en matière d'évaluation et élimination conformément à l'Annexe 1 et l'Annexe 2 (Directive 2008/98/CE, Décret no 2011-828, Ordonnance no 2010-1579). Conformément aux codes 15 01 (2014/955/CE), au cas où l'emballage entrerait en contact avec le produit, il faudra procéder de la même façon qu'avec le propre produit, dans le cas contraire, il faudra le traiter comme un résidu non dangereux. Il est fortement déconseillé de le verser dans des cours d'eau. Voir sous-rubrique 6.2.

Dispositions se rapportant au traitement des déchets:

Conformément à l'Annexe II du Règlement (CE) n°1907/2006 (REACH) les dispositions communautaires ou nationales se rapportant au traitement des déchets sont appliquées.

Législation communautaire: Directive 2008/98/CE, 2014/955/CE, Règlement (UE) n°1357/2014

RUBRIQUE 14: INFORMATIONS RELATIVES AU TRANSPORT

Ce produit n'est pas réglementé pour le transport (ADR/RID, IMDG, IATA)

RUBRIQUE 15: INFORMATIONS RELATIVES À LA RÉGLEMENTATION

15.1 Réglementations/législations particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement:

Substances soumises à autorisation dans le Règlement (CE) 1907/2006 (REACH) : Pas pertinent

Substances inscrites à l'annexe XIV de REACH (liste d'autorisation) et date d'expiration: Pas pertinent

Règlement (CE) 1005/2009 sur les substances qui perforent la couche d'ozone : Pas pertinent

Article 95, RÈGLEMENT (UE) No 528/2012: Pas pertinent

RÈGLEMENT (UE) No 649/2012 régissant l'exportation et l'importation de produits chimiques dangereux : Pas pertinent

Seveso III:

Pas pertinent

Restrictions en matière de commercialisation et d'usage de certaines substances et mélanges dangereux (Annexe XVII REACH, etc...):

- SUITE À LA PAGE SUIVANTE -



RUBRIQUE 15: INFORMATIONS RELATIVES À LA RÉGLEMENTATION (suite)

Ne peuvent être utilisés:

- dans des articles décoratifs destinés à produire des effets de lumière ou de couleur obtenus par des phases différentes, par exemple dans des lampes d'ambiance et des cendriers,
- dans des farces et attrapes,
- dans des jeux destinés à un ou plusieurs participants ou dans tout article destiné à être utilisé comme tel, même sous des aspects décoratifs.

Tableaux des maladies professionnelles (Régime général) 36: Affections provoquées par les huiles et graisses d'origine minérale ou de synthèse

Dispositions spéciales en matière de protection des personnes ou d'environnement:

Il est recommandé d'utiliser l'information recueillie sur cette fiche de données de sécurité faisant office d'information de départ pour une évaluation des risques des circonstances locales dans le but d'établir les mesures nécessaires en matière de prévention des risques pour la manipulation, l'utilisation, le stockage et l'élimination du produit.

Autres législations:

Pas pertinent

15.2 Évaluation de la sécurité chimique:

Le fournisseur a effectué l'évaluation de la sécurité chimique.

RUBRIQUE 16: AUTRES INFORMATIONS

Législation s'appliquant aux fiches de données en matière de sécurité:

Cette fiche de données en matière de sécurité a été réalisée conformément à l'ANNEXE II - Guide pour élaborer des Fiches de Données en matière de Sécurité du Règlement (CE) N° 1907/2006 (RÈGLEMENT (UE) 2020/878 DE LA COMMISSION)

Modifications par rapport à la fiche de sécurité précédente avec répercussions sur les mesures de gestion du risque :

Pas pertinent

Textes des phrases législatives dans la rubrique 2:

H304: Peut être mortel en cas d'ingestion et de pénétration dans les voies respiratoires.

Textes des phrases législatives dans la rubrique 3:

Les phrases inscrites ne portent pas sur le produit lui-même, elles sont seulement à titre d'information et se réfèrent aux composants individuels qui apparaissent dans la section 3

Règlement n° 1272/2008 (CLP) :

Asp. Tox. 1: H304 - Peut être mortel en cas d'ingestion et de pénétration dans les voies respiratoires.

Conseils relatifs à la formation:

Une formation minimum en matière de prévention des risques au travail est recommandée pour le personnel qui va manipuler ce produit, dans le but de faciliter la compréhension et l'interprétation de cette fiche de données de sécurité au même titre que l'étiquetage du produit.

Sources de documentation principale:

<http://echa.europa.eu>
<http://eur-lex.europa.eu>

Abréviations et acronymes:

ADR: Accord européen relatif au transport international des marchandises dangereuses par route
IMDG: Code maritime international des marchandises dangereuses
IATA: Association internationale du transport aérien
ICAO: Organisation de l'aviation civile internationale
DCO: Demande chimique en oxygène
DBO5: Demande biologique en oxygène après 5 jours
FBC: Facteur de bioconcentration
DL50: Dose létale 50 CL50: Concentration létale 50
CE50: Concentration effective 50
Log Pow: Coefficient de partage octanol/eau
UFI: identifiant unique de formulation
IARC: Centre international de recherche sur le cancer

L'information contenue sur cette Fiche de données de sécurité est fondée sur des sources, des connaissances techniques ainsi que sur la législation en vigueur au niveau européen et national, ne pouvant en aucun cas, garantir l'exactitude de celle-ci. Il est impossible de considérer que ladite information est une garantie des propriétés dudit produit. Il s'agit simplement d'une description concernant les exigences en matière de sécurité. La méthodologie et les conditions de travail des utilisateurs de ce produit ne relèvent pas de nos connaissances et de nos contrôles, l'utilisateur devant toujours assumer en toute responsabilité les mesures nécessaires à prendre pour observer les exigences légales en matière de manipulation, stockage, usage et élimination de produits chimiques. L'information contenue sur cette fiche de sécurité ne concerne que ce produit, ce dernier ne devant pas être utilisé à d'autres fins que celles qui y sont stipulées.

- FIN DE LA FICHE DE DONNÉES DE SÉCURITÉ -

Agrochemicals of White Mineral Oil (H304) (Professional)

Section 1	Exposure Scenario Title
Title	Use in Agrochemicals – Professional
Use Descriptor	Sector(s) of Use: 22
	Process Categories: 1, 2, 4, 8a, 8b, 11, 13
	Environmental Release Categories: 8a, 8d
	Specific Environmental Release Category: ESVOC 8.11a.v1
Processes, tasks, activities covered	Use as an agrochemical excipient for application by manual or machine spraying, smokes and fogging; including equipment clean-downs and disposal.
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Product category	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
Transfer from/pouring from Containers CS22. Dedicated facility CS81	No other specific measures identified EI20
Mixing operations (open systems) CS30	No other specific measures identified EI20
Spraying/fogging by manual Application CS24	Wear a respirator conforming to EN140 with Type A filter or better. PPE22
Spraying/fogging by machine application CS25	Apply within a vented cab supplied with filtered air under positive pressure and with a protection factor of >20 E70
Ad hoc manual application via trigger sprays, dipping, etc. CS27	No other specific measures identified EI20
Equipment cleaning and Maintenance CS39	Drain down system prior to equipment break-in or maintenance E65
Storage CS67	Store substance within a closed system E84

Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 1.8E+2 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 3.6E-1 Maximum daily site tonnage (kg/day) 1.0E+0
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 365
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from wide dispersive use (regional use only) OOC7: 0.9 Release fraction to wastewater wide dispersive use OOC8: 0.01 Release fraction to soil from wide dispersive use (regional use only) OOC9: 0.09
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater TCR1a No wastewater treatment required TCR6 Treat air emission to provide a typical removal efficiency of (%): N/A Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 0.0 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils [OMS2]. Sludge should be incinerated, contained or reclaimed OMS3.
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 3.5E+1 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations. ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i>
4.2. Environment	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html)</i>

Water treatment chemicals of White Mineral Oil (H304) (Professional)

Section 1	Exposure Scenario Title
Title	Use in Water Treatment Chemicals – Professional
Use Descriptor	Sector(s) of Use: 22
	Process Categories: 1, 2, 3, 4, 8a, 8b, 13
	Environmental Release Categories: 8f
	Specific Environmental Release Category: ESVOC 8.22b.v1
Processes, tasks, activities covered	Covers the use of the substance for the treatment of water in open and closed systems
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Product category	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
Drum batch transfers CS8. Dedicated facility CS81	No other specific measures identified EI20
General Exposures (Closed systems) CS15	No other specific measures identified EI20
General exposures (open systems) CS16	No other specific measures identified EI20
Pouring from small containers CS9	No other specific measures identified EI20
Equipment cleaning and maintenance CS39	Drain down system prior to equipment break-in or maintenance E65
Storage CS67	Store substance within a closed system E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].

Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 6.3E+1 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 1.5E+0 Maximum daily site tonnage (kg/day) 4.0E+0
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 365
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from wide dispersive use (regional use only) OOC7: 0.01 Release fraction to wastewater wide dispersive use OOC8: 0.99 Release fraction to soil from wide dispersive use (regional use only) OOC9: 0
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Agricultural Soil [TCR1f] If discharging to domestic sewage treatment plant, no onsite wastewater treatment required TCR10. Treat air emission to provide a typical removal efficiency of (%): N/A Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 18.4 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils OMS2. Sludge should be incinerated, contained or reclaimed OMS3.
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 7.9E+1 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i>
4.2. Environment	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) DSU4.</i>

Water treatment chemicals of White Mineral Oil (H304) (Industrial)

Section 1	Exposure Scenario Title
Title	Use in Water Treatment Chemicals – Industrial
Use Descriptor	Sector(s) of Use: 10
	Process Categories: 1, 2, 3, 4, 8a, 8b, 13
	Environmental Release Categories: 4
	Specific Environmental Release Category: ESVOC 3.22a.v1
Processes, tasks, activities covered	Covers the use of the substance for the treatment of water at industrial facilities in open and closed systems.
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Product category	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
Bulk transfers CS14. Use in contained systems CS38	No other specific measures identified EI20
Drum batch transfers CS8. Dedicated facility CS81	No other specific measures identified EI20
General Exposures (Closed systems) CS15	No other specific measures identified EI20
General exposures (open systems) CS16	No other specific measures identified EI20
Pouring from small containers CS9	No other specific measures identified EI20
Equipment cleaning and maintenance CS39	Drain down system prior to equipment break-in or maintenance E65
Storage CS67	Store substance within a closed system E84

Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 3.6E+2 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 3.0E+1 Maximum daily site tonnage (kg/day) 1.0E+2
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 300
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM): 0.05 Release fraction to wastewater from process (initial release prior to RMM): 0.95 Release fraction to soil from process (initial release prior to RMM): 0
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater Sediment TCR1b If discharging to domestic sewage treatment plant, no onsite wastewater treatment required TCR10. Treat air emission to provide a typical removal efficiency of (%): 0 Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 18.4 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils OMS2. Sludge should be incinerated, contained or reclaimed OMS3.
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 2.4E+3 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i>
4.2. Environment	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies</i>

are provided in SpERC factsheet (<http://cefic.org/en/reach-for-industries-libraries.html>)
DSU4.

Coatings of White Mineral Oil (H304) (Professional)

Section 1	Exposure Scenario Title
Title	Uses in Coatings – Professional
Use Descriptor	Sector(s) of Use: 22
	Process Categories: 1, 2, 3, 4, 5, 8a, 8b, 10, 11, 13, 15, 19
	Environmental Release Categories: 8a, 8b
	Specific Environmental Release Category: ESVOC 8.3b.v1
Processes, tasks, activities covered	Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, brush, spreader by hand or similar methods, and film formation), and equipment cleaning, maintenance and associated laboratory activities.
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Contributing Scenarios	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
Filling / preparation of equipment from drums or containers CS45. Dedicated facility CS81	No other specific measures identified. EI20
General exposures (closed systems) CS15	No other specific measures identified. EI20
Preparation of material for Application CS96. Mixing operations (closed systems) CS29	No other specific measures identified. EI20
Film formation - air drying (indoor / outdoor) CS95	No other specific measures identified. EI20
Preparation of material for Application CS96. Mixing operations (open systems) CS30. Pouring from small containers (indoor / outdoor) CS9	No other specific measures identified. EI20
Material transfers CS3. Drum/batch transfers CS8. Non-dedicated facility CS82	Use drum pumps E53
Roller, spreader, flow Application (indoor / outdoor) CS98	No other specific measures identified. EI20

Spraying/fogging by manual application CS24. Indoor OC8	Carry out in a vented booth or extracted enclosure E57
Spraying/fogging by manual application CS24.Outdoor OC9	Wear a half mask respirator conforming to EN140, 149 or equivalent PPE22
Dipping, immersion and Pouring (indoor / outdoor) CS4	No other specific measures identified. EI20
Laboratory activities CS36	No other specific measures identified. EI20
Hand application - fingerpaints, pastels, adhesives (indoor / outdoor) CS72	No other specific measures identified. EI20
Equipment cleaning and Maintenance CS39	Drain down system prior to equipment break-in or maintenance E65
Storage CS67	Store substance within a closed system E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 1.2E+2 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 5.9E-2 Maximum daily site tonnage (kg/day) 1.6E-1
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 365
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from wide dispersive use (regional use only). OOC7: 0.98 Release fraction to wastewater wide dispersive use. OOC8: 0.01 Release fraction to soil from wide dispersive use (regional use only) OOC9: 0.01
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used. TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater. TCR1a No wastewater treatment required. TCR6 Treat air emission to provide a typical removal efficiency of (%): N/A Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 0.0 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils. OMS2. Sludge should be incinerated, contained or reclaimed. OMS3
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater. STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 5.8E+0 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national regulations.ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations. ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise</i>

	<i>indicated. G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i>
4.2. Environment	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) DSU4.</i>

Coatings of White Mineral Oil (H304) (Industrial)

Section 1	Exposure Scenario Title
Title	Uses in Coatings – Industrial
Use Descriptor	Sector(s) of Use: 3
	Process Categories: 1, 2, 3, 4, 5, 7, 8a, 8b, 10, 13, 15
	Environmental Release Categories: 4
	Specific Environmental Release Category: ESVOC 4.3a.v1
Processes, tasks, activities covered	Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, spreader, dip, flow, fluidised bed on production lines and film formation) and equipment cleaning, maintenance and associated laboratory activities.
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Contributing Scenarios	Specific Risk Management Measures and Operating Conditions (<i>only required controls to demonstrate safe use listed</i>)
General exposures (closed systems). CS15. Whit sample collection CS56	No other specific measures identified. EI20
Bulk transfers CS14. Dedicated facility. CS81	No other specific measures identified. EI20
Film formation-force drying, stoving and other technologies. Use in contained systems CS99. Elevated temperature CS111	No other specific measures identified. EI20
Film formation-air drying CS95. (Open systems) CS108	No other specific measures identified. EI20
Preparation of material for Application CS96. Mixing operations (closed Systems CS29	No other specific measures identified. EI20
Preparation of material for Application CS96. Mixing operations (open systems) CS30.	No other specific measures identified. EI20
Spraying (automatic/robotic) CS97.	Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings. E60

Spraying/fogging by manual Application CS24.	Wear a respirator conforming to EN140 with Type A filter or better. PPE22
Material transfers CS3. Non-dedicated facility CS82.	No other specific measures identified. EI20
Material transfers CS3. Dedicated facility CS81.	No other specific measures identified. EI20
Roller, spreader, flow Application CS69.	No other specific measures identified. EI20
Dipping, immersion and Pouring CS4	No other specific measures identified. EI20
Laboratory activities CS36.	No other specific measures identified. EI20
Material transfers CS3. Drum/batch transfers CS8. Transfer from/pouring from Containers CS22.	No other specific measures identified. EI20
Production or preparation of articles by tableting, compression, extrusion or pelletisation CS100.	No other specific measures identified. EI20
Equipment cleaning and Maintenance CS39.	Drain down system prior to equipment break-in or maintenance E65
Storage CS67.	Store substance within a closed system. E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 1.5E+3 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 1.5E+3 Maximum daily site tonnage (kg/day) 1.5E+4
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 100
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior RMM) 0.98 Release fraction to wastewater from process (initial release prior to RMM) 2.0E-5 Release fraction to soil from process (initial release prior to RMM) 0
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used. TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater Sediment. TCR1b Prevent discharge of undissolved substance to or recover from onsite wastewater. TCR14 If discharging to domestic sewage treatment plant, no onsite wastewater treatment required. TCR10 Treat air emission to provide a typical removal efficiency of (%): 90 Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 17.7 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils. OMS2. Sludge should be incinerated, contained or reclaimed. OMS3
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater. STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6

	Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 3.7E+5 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national regulations.ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations. ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i>
4.2. Environment	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) DSU4.</i>

Intermediate of White Mineral Oil (H304) (Industrial)

Section 1	Exposure Scenario Title
Title	Use as Substance as Intermediate – Industrial
Use Descriptor	Sector(s) of Use: 3, 8, 9
	Process Categories: 1, 2, 3, 4, 8a, 8b, 15
	Environmental Release Categories: 6a
	Specific Environmental Release Category: ESVOC 6.1a.v1
Processes, tasks, activities covered	Manufacture of the substance or use as an intermediate or process chemical or extraction agent. Includes recycling/ recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Contributing Scenarios	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
General exposures (closed systems). CS15	No other specific measures identified. EI20
General exposures (open systems). CS16	No other specific measures identified. EI20
Process sampling. CS2	No other specific measures identified. EI20
Laboratory activities. CS36	No other specific measures identified. EI20
Bulk transfers CS14 (closed systems). CS107	No other specific measures identified. EI20
Bulk transfers CS14 (open systems). CS108	No other specific measures identified. EI20
Equipment cleaning and maintenance. CS39	Drain down system prior to equipment break-in or maintenance. ES65

Bulk product storage. CS85	Store substance within a closed system. E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 4.0E+1 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 4.0E+1 Maximum daily site tonnage (kg/day) 2.0E+3
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 20
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior RMM) 0.0E+0 Release fraction to wastewater from process (initial release prior to RMM) 1.0E-5 Release fraction to soil from process (initial release prior to RMM) 0.001
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used. TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater. TCR1a Prevent discharge of undissolved substance to or recover from onsite wastewater. TCR14 No wastewater treatment required. TCR6 Treat air emission to provide a typical removal efficiency of (%): 80 Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 0.0 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils. OMS2. Sludge should be incinerated, contained or reclaimed. OMS3
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater. STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 6.7E+4 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	This substance is consumed during use and no waste of the substance is generated. ETW5
Conditions and measures related to external recovery of waste	This substance is consumed during use and no waste of the substance is generated. ERW3
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37</i>
4.2. Environment	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1.</i>

	<p><i>Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html). DSU4</i></p>
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Rubber production and processing of White Mineral Oil (H304) (Industrial)

Section 1	Exposure Scenario Title
Title	Rubber Production and Processing – Industrial
Use Descriptor	Sector(s) of Use: 3, 10, 11
	Process Categories: 1, 2, 3, 4, 5, 6, 7, 8a, 8b, 10, 13, 14, 15, 21
	Environmental Release Categories: 4, 6d
	Specific Environmental Release Category: ESVOC 4.19.v1
Processes, tasks, activities covered	Manufacture of tyres and general rubber articles, including processing of raw (uncured) rubber, handling and mixing of rubber additives, calendaring, vulcanising, cooling and finishing as well as maintenance.
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Product category	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
Bulk transfers CS14. (closed systems) CS107	No other specific measures identified EI20
Bulk transfers CS14. Dedicated facility CS81	No other specific measures identified EI20
Bulk weighing CS91. (closed systems) CS107	No other specific measures identified EI20
Small scale weighing CS90. Dedicated facility CS81	No other specific measures identified EI20
Additive premixing CS92. (open systems) CS108	No other specific measures identified EI20
Material transfers CS3. Dedicated facility CS81	No other specific measures identified EI20
Calendaring (including Banburys) CS64. Operation is carried out at elevated temperature (> 20°C above ambient temperature) OC7	No other specific measures identified EI20

Pressing uncured rubber Blanks CS73	No other specific measures identified EI20
Tyre build up CS112. Spraying CS10	Minimise exposure by extracted full enclosure for the operation or equipment E61
Vulcanisation CS70. Operation is carried out at elevated temperature (> 20°C above ambient temperature) OC7	Provide extract ventilation to material transfer points and other openings E82
Cooling cured articles CS71. Operation is carried out at elevated temperature (> 20°C above ambient temperature) OC7	Provide extract ventilation to points where emissions occur E54
Production of articles by dipping and pouring CS113	No other specific measures identified EI20
Finishing operations CS102	No other specific measures identified EI20
Laboratory activities CS36	No other specific measures identified EI20
Equipment cleaning and Maintenance CS39	Drain down system prior to equipment break-in or maintenance E65
Storage CS67	Store substance within a closed system E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 4.3E+3 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 4.3E+3 Maximum daily site tonnage (kg/day) 4.3E+4
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 100
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM): 0.01 Release fraction to wastewater from process (initial release prior to RMM): 1.0E-5 Release fraction to soil from process (initial release prior to RMM): 0.0001
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater Sediment TCR1b Prevent discharge of undissolved substance to or recover from onsite wastewater TCR14 If discharging to domestic sewage treatment plant, no onsite wastewater treatment required TCR10 Treat air emission to provide a typical removal efficiency of (%): 0 Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency ≥ (%): 18.4 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ≥ (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils OMS2. Sludge should be incinerated, contained or reclaimed OMS3
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 1.0E+6

	Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations. ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrорisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i>
4.2. Environment	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) DSU4.</i>

Release agents or binders of White Mineral Oil (H304) (Professional)

Section 1	Exposure Scenario Title
Title	Use as Release Agents or Binders – Professional
Use Descriptor	Sector(s) of Use: 22
	Process Categories: 1, 2, 3, 4, 6, 8a, 8b, 10, 11, 14
	Environmental Release Categories: 8a, 8d
	Specific Environmental Release Category: ESVOC 8.10b.v1
Processes, tasks, activities covered	Covers the use as binders and release agents including material transfers, mixing, application by spraying, brushing, and handling of waste.
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Product category	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
Material transfers CS3. (closed systems) CS107	No other specific measures identified EI20
Drum/batch transfers CS8. Dedicated facilities CS81	No other specific measures identified EI20
Drum/batch transfers CS8. Non-dedicated facility CS82	Avoid carrying out activities involving exposure for more than 1 hour OC27
Mixing operations (closed systems) CS29	No other specific measures identified EI20
Mixing operations (open systems) CS30	No other specific measures identified EI20
Mold forming CS31	No other specific measures identified EI20
Casting operations CS32. (open systems) CS108. Elevated temperature CS111	Apply extract ventilation to points where emissions occur E54

Spraying CS10. Machine CS33	Carry out in a vented booth or extracted enclosure E57 Avoid carrying out activities involving exposure for more than 4 hours OC28
Spraying CS10. Manual CS34	Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour) E11 Avoid carrying out activities involving exposure for more than 1 hour OC27 , or: G9 Wear a respirator conforming to EN140 with Type A filter or better PPE22
Manual CS34. Roller, brushing CS51	No other specific measures identified EI20
Equipment cleaning and Maintenance CS39	Drain down system prior to equipment break-in or maintenance E65
Storage CS67	Store substance within a closed system E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 5.1E+1 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 2.6E-2 Maximum daily site tonnage (kg/day) 7.0E-2
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 365
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from wide dispersive use (regional use only) OOC7: 0.95 Release fraction to wastewater wide dispersive use OOC8: 0.025 Release fraction to soil from wide dispersive use (regional use only) OOC9: 0.025
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater TCR1a No wastewater treatment required TCR6 Treat air emission to provide a typical removal efficiency of (%): N/A Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 0.0 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils [OMS2]. Sludge should be incinerated, contained or reclaimed OMS3.
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 2.5E+0 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations. ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>

Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<p><i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i></p>
4.2. Environment	<p><i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4]</i></p>

Release agents or binders of White Mineral Oil (H304) (Industrial)

Section 1	Exposure Scenario Title
Title	Use as Release Agents or Binders – Industrial
Use Descriptor	Sector(s) of Use: 3
	Process Categories: 1, 2, 3, 4, 6, 7, 8b, 10, 13, 14
	Environmental Release Categories: 4
	Specific Environmental Release Category: ESVOC 4.10a.v1
Processes, tasks, activities covered	Covers the use as binders and release agents including material transfers, mixing, application (including spraying and brushing), mould forming and casting, and handling of waste
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Product category	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
Material transfers CS3. (closed systems) CS107	No other specific measures identified EI20
Drum/batch transfers CS8. Dedicated facilities CS81	No other specific measures identified EI20
Mixing operations (closed systems) CS29	No other specific measures identified EI20
Mixing operations (open systems) CS30	No other specific measures identified EI20
Dipping, immersion and pouring CS4	No other specific measures identified EI20
Mold forming CS31	No other specific measures identified EI20
Casting operations CS32. (open systems) CS108. Elevated temperature CS111	Apply extract ventilation to emissions E60

Spraying CS10	Carry out in a vented booth or extracted enclosure E57 , or: G9 Wear a full face respirator conforming to EN140 with Type A filter or better. PPE24
Manual CS34. Roller, brushing CS51	No other specific measures identified EI20
Treatment by dipping and pouring CS35	No other specific measures identified EI20
Equipment cleaning and Maintenance CS39	Drain down system prior to equipment break-in or maintenance E65
Storage CS67	Store substance within a closed system E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 5.1E+1 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 5.1E+1 Maximum daily site tonnage (kg/day) 2.6E+3
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 20
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM): 1.0 Release fraction to wastewater from process (initial release prior to RMM): 1.0E-7 Release fraction to soil from process (initial release prior RMM): 0
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater TCR1a Prevent discharge of undissolved substance to or recover from onsite wastewater TCR14 No wastewater treatment required TCR6 Treat air emission to provide a typical removal efficiency of (%): 80 Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 0.0 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils [OMS2]. Sludge should be incinerated, contained or reclaimed OMS3.
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 9.3E+4 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations. ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>

Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<p><i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22.</i></p> <p><i>Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23.</i></p> <p><i>Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i></p>
4.2. Environment	<p><i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4]</i></p>

Polymer processing of White Mineral Oil (H304) (Industrial)

Section 1	Exposure Scenario Title
Title	Use in Polymer Processing – Industrial
Use Descriptor	Sector(s) of Use: 10
	Process Categories: 1, 2, 3, 4, 5, 6, 8a, 8b, 9, 13, 14, 21
	Environmental Release Categories: 4
	Specific Environmental Release Category: ESVOC 4.21a.v1
Processes, tasks, activities covered	Processing of formulated polymers including material transfers, additives handling (e.g. pigments, stabilisers, fillers, plasticisers, etc.), moulding, curing and forming activities, material re-works, storage and associated maintenance.
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Product category	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
Bulk transfers CS14. (closed systems) CS107	No other specific measures identified EI20
Bulk transfers CS14. Dedicated facility CS81	No other specific measures identified EI20
Bulk weighing CS91. (closed systems) CS107	No other specific measures identified EI20
Small scale weighing CS90	No other specific measures identified EI20
Additive premixing CS92	No other specific measures identified EI20
Calendering (including Banburys) CS64. Operation is carried out at elevated temperature (>20°C above ambient temperature) OC7	Provide extract ventilation to material transfer points and other openings. E82
Production of articles by dipping and pouring CS113	No other specific measures identified EI20

Extrusion and Masterbatching CS88	No other specific measures identified EI20
Injection moulding of Articles CS89	No other specific measures identified EI20
Finishing operations CS102	No other specific measures identified EI20
Equipment cleaning and Maintenance CS39	Drain down system prior to equipment break-in or maintenance E65
Storage CS67	Store substance within a closed system E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 1.9E+3 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 1.9E+3 Maximum daily site tonnage (kg/day) 1.9E+4
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 100
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM): 1.0E-1 Release fraction to wastewater from process (initial release prior to RMM): 0 Release fraction to soil from process (initial release prior to RMM): 0.00001
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater TCR1a No wastewater treatment required TCR6 Treat air emission to provide a typical removal efficiency of (%): 80 Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 0.0 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 6.9E+5 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations. ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>

Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<p><i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i></p>
4.2. Environment	<p><i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) DSU4.</i></p>

Metal Working Fluids/ rolling oils of White Mineral Oil (H304) (Professional: High Environmental Release)

Section 1	Exposure Scenario Title
Title	Use in Metal Working Fluids/Rolling Oils – Professional: high environmental release
Use Descriptor	Sector(s) of Use: 22
	Process Categories: 1, 2, 3, 5, 8a, 8b, 10, 11, 13, 17
	Environmental Release Categories: 8a, 8d
	Specific Environmental Release Category: ESVOC 8.7c.v1
Processes, tasks, activities covered	Covers the use in formulated MWFs including transfer operations, open and contained cutting/machining activities, automated and manual application of corrosion protections, draining and working on contaminated/ reject articles, and disposal of waste oils.
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Product category	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
General exposures (closed systems) CS15	No other specific measures identified EI20
Bulk transfers CS14. Dedicated facility CS81	No other specific measures identified EI20
Filling / preparation of equipment from drums or containers CS45. Dedicated facility CS81	No other specific measures identified EI20
Filling / preparation of equipment from drums or containers. CS45.Non-dedicated facility CS82	Avoid carrying out activities involving exposure for more than 1 hour OC27
Process sampling CS2	No other specific measures identified EI20
Metal machining operations CS79	Provide a good standard of controlled ventilation (10 to 15 air changes per hour) E40 Avoid carrying out activities involving exposure for more than 4 hours OC28 Limit the substance content in the product to 25 % OC18

Manual CS34. Roller, brushing CS51	No other specific measures identified EI20
Spraying CS10	Avoid carrying out activities involving exposure for more than 1 hour OC27 Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour) E11 , or: G9 Wear a respirator conforming to EN140 with Type A/P2 filter or better PPE29
Treatment by dipping and pouring CS35	No other specific measures identified EI20
Equipment cleaning and maintenance CS39	Drain down system prior to equipment break-in or maintenance E65
Storage CS67	Store substance within a closed system E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 6.3E+1 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 3.1E-2 Maximum daily site tonnage (kg/day) 8.6E-2
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 365
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from wide dispersive use(regional use only) OOC7: 5.0E-3 Release fraction to wastewater wide dispersive use OOC8: 0.05 Release fraction to soil from wide dispersive use (regional use only): 0.05
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater TCR1a No wastewater treatment required TCR6 Treat air emission to provide a typical removal efficiency of (%): N/A Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 0.0 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils [OMS2]. Sludge should be incinerated, contained or reclaimed OMS3.
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 3.1E+0 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations. ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>

Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<p><i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22.</i></p> <p><i>Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23.</i></p> <p><i>Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i></p>
4.2. Environment	<p><i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4]</i></p>

Metal Working Fluids/ rolling oils of White Mineral Oil (H304) (Industrial)

Section 1	Exposure Scenario Title
Title	Use in Metal Working Fluids/Rolling Oils – Industrial
Use Descriptor	Sector(s) of Use: 3
	Process Categories: 1, 2, 3, 4, 5, 7, 8a, 8b, 9, 10, 13, 17
	Environmental Release Categories: 4
	Specific Environmental Release Category: ESVOC 4.7a.v1
Processes, tasks, activities covered	Covers the use in formulated MWFs/rolling oils including transfer operations, rolling and annealing activities, cutting/machining activities, automated and manual application of corrosion protections (including brushing, dipping and spraying), equipment maintenance, draining and disposal of waste Oils.
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Product category	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
General exposures (closed systems) CS15	No other specific measures identified EI20
General exposures (open systems) CS16	No other specific measures identified EI20
Bulk transfers CS14. Dedicated facility CS81	No other specific measures identified EI20
Filling / preparation of equipment from drums or containers CS45. Dedicated facility CS81	No other specific measures identified EI20
Process sampling CS2	No other specific measures identified EI20
Metal machining operations CS79	Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings E60
Treatment by dipping and Pouring CS35	No other specific measures identified EI20

Spraying CS10	Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings E60
Manual CS34 Roller, brushing CS21	No other specific measures identified EI20
Automated metal rolling/forming CS80 Use in contained systems CS38 Elevated temperature CS111	No other specific measures identified EI20
Semi-automated metal rolling/forming CS83 Elevated temperature CS111	Provide extract ventilation to points where emissions occur E54
Semi-automated metal rolling/forming CS83	No other specific measures identified EI20
Equipment cleaning and Maintenance CS39. Dedicated facility CS81	Drain down system prior to equipment break-in or maintenance E65
Equipment cleaning and Maintenance CS39. Non-dedicated facility CS82	Drain down system prior to equipment break-in or maintenance E65
Storage CS67	Store substance within a closed system E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 1.9E+2 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 1.0E+2 Maximum daily site tonnage (kg/day) 5.0E+3
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 20
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior RMM): 0.02 Release fraction to wastewater from process (initial release prior to RMM): 1.0E-6 Release fraction to soil from process (initial release prior RMM): 0
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater TCR1a Prevent discharge of undissolved substance to or recover from onsite wastewater TCR14. No wastewater treatment required TCR6 Treat air emission to provide a typical removal efficiency of (%): 70 Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 0.0 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils [OMS2]. Sludge should be incinerated, contained or reclaimed OMS3.
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 1.8E+5 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3

Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations. ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i>
4.2. Environment	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4]</i>

Manufacture of Substance of White Mineral Oil (H304) (Industrial)

Section 1	Exposure Scenario Title
Title	Manufacture of Substance – Industrial
Use Descriptor	Sector(s) of Use: 3, 8, 9
	Process Categories: 1, 2, 3, 4, 8a, 8b, 15
	Environmental Release Categories: 4
	Specific Environmental Release Category: ESVOC 1.1.v1
Processes, tasks, activities covered	Manufacture of the substance or use as an intermediate or process chemical or extraction agent. Includes recycling/ recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Contributing Scenarios	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
General exposures (closed systems). CS15	No other specific measures identified. EI20
General exposures (open systems). CS16	No other specific measures identified. EI20
Process sampling. CS2	No other specific measures identified. EI20
Laboratory activities. CS36	No other specific measures identified. EI20
Bulk transfers CS14 (closed systems). CS107	No other specific measures identified. EI20
Bulk transfers CS14 (open systems). CS108	No other specific measures identified. EI20
Equipment cleaning and maintenance. CS39	Drain down system prior to equipment break-in or maintenance. ES65

Bulk product storage. CS85	Store substance within a closed system. E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 2.4E+4 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 2.4E+4 Maximum daily site tonnage (kg/day) 8.2E+4
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 300
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior RMM) 1.0E-5 Release fraction to wastewater from process (initial release prior to RMM) 1.0E-5 Release fraction to soil from process (initial release prior to RMM) 0.0001
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used. TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater. TCR1a Prevent discharge of undissolved substance to or recover from onsite wastewater. TCR14 If discharging to domestic sewage treatment plant, no onsite wastewater treatment required. TCR10 Treat air emission to provide a typical removal efficiency of (%): 90 Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 27.5 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils. OMS2. Sludge should be incinerated, contained or reclaimed. OMS3
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater. STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 1.7E+6 Assumed domestic sewage treatment plant flow (m ³ /d): 10000
Conditions and measures related to external treatment of waste for disposal	During manufacturing no waste of the substance is generated. ETW4
Conditions and measures related to external recovery of waste	During manufacturing no waste of the substance is generated. ERW2
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i>
4.2. Environment	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures [DSU1].</i>

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (<http://cefic.org/en/reach-for-industries-libraries.html>) [DSU4]. Scaled assessments for EU refineries have been performed using site-specific data and are attached in PETRORISK file – “Site-Specific Production” worksheet. DSU6

Lubricant of White Mineral Oil (H304) (Industrial)

Section 1	Exposure Scenario Title
Title	Lubricants – Industrial
Use Descriptor	Sector(s) of Use: 3
	Process Categories: 1, 2, 3, 4, 7, 8a, 8b, 9, 10, 13, 17, 18
	Environmental Release Categories: 4, 7
	Specific Environmental Release Category: ESVOC 4.6a.v1
Processes, tasks, activities covered	Covers the use of formulated lubricants in closed and open systems including material transfers operations, operation of machinery/engines and similar articles, reworking on reject articles, equipment maintenance and disposal of wastes.
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Product category	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
General exposures (closed systems) CS15	General exposures (closed systems) CS15
General exposures (open systems) CS16	General exposures (open systems) CS16
Bulk transfers CS14.Dedicated facility CS81	Bulk transfers CS14. Dedicated facility CS81
Filling / preparation of equipment from drums or containers. CS45. Non-dedicated facility CS82	Filling / preparation of equipment from drums or containers. CS45. Non-dedicated facility CS82
Initial factory fill of Equipment CS75	Initial factory fill of equipment CS75
Operation and lubrication of high energy open equipment CS17	Operation and lubrication of high energy open equipment CS17
Manual CS34. Roller, brushing CS51	Manual CS34. Roller, brushing CS51

Treatment by dipping and Pouring CS35	Treatment by dipping and pouring CS35
Spraying CS10	Spraying CS10
Maintenance (of larger plant items) and machine set up CS77. Dedicated facility CS81. Elevated temperature CS111	Maintenance (of larger plant items) and machine set up CS77. Dedicated facility CS81. Elevated temperature CS111
Maintenance of small items CS18. Non-dedicated facility CS82	Maintenance of small items CS18. Non-dedicated facility CS82
Remanufacture of reject Articles CS19	Remanufacture of reject articles CS19
Storage CS67	Storage CS67
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 9.3E+3 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 1.0E+2 Maximum daily site tonnage (kg/day) 5.0E+3
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 20
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM): 1.0E-4 Release fraction to wastewater from process (initial release prior to RMM): 1.0E-6 Release fraction to soil from process (initial release prior to RMM): 0.001
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater TCR1a Prevent discharge of undissolved substance to or recover from onsite wastewater TCR14. No wastewater treatment required TCR6. Treat air emission to provide a typical removal efficiency of (%): 70 Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 0.0 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils [OMS2]. Sludge should be incinerated, contained or reclaimed OMS3
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 1.8E+5 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.G21</i>

3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i>
4.2. Environment	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) DSU4.</i>

Lubricant (low release) of White Mineral Oil (H304) (Professional)

Section 1	Exposure Scenario Title
Title	Lubricants – Professional: Low Environmental Release
Use Descriptor	Sector(s) of Use: 22
	Process Categories: 1, 2, 3, 4, 8a, 8b, 9, 13, 17, 20
	Environmental Release Categories: 9a, 9b
	Specific Environmental Release Category: ESVOC 9.6b.v1
Processes, tasks, activities covered	Covers the use of formulated lubricants in closed or contained systems including material transfers operations, operation of engines and similar articles, reworking on reject articles, equipment maintenance and disposal of waste oil.
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Product category	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
General exposures (closed systems) CS15	No other specific measures identified EI20
Operation of equipment containing engine oils and similar CS26. (Closed systems) CS107	No other specific measures identified EI20
General exposures (open systems) CS16	No other specific measures identified EI20
Bulk transfers CS14.Dedicated facility CS81	No other specific measures identified EI20
Filling / preparation of equipment from drums or containers. CS45. Dedicated facility CS81	No other specific measures identified EI20
Filling / preparation of equipment from drums or containers CS45. Non dedicated facility CS82	Avoid carrying out activities involving exposure for more than 1 hour OC27
Operation and lubrication of high energy open equipment CS17. Indoor OC8	Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings E60

Operation and lubrication of high energy open equipment CS17. Outdoor OC9	Ensure operation is undertaken outdoors E69. Avoid carrying out operation for more than 4 hours OC12 Limit the substance content in the product to 25 % OC18
Maintenance (of larger plant items) and machine set up CS77. Dedicated facility CS81. Elevated temperature CS111	Drain down system prior to equipment break-in or maintenance E65 Provide extract ventilation to emission points when contact with warm (>50oC) lubricant is likely) E67
Maintenance of small items CS18. Non-dedicated facility CS82. Elevated temperature CS111	Drain or remove substance from equipment prior to break-in or maintenance E81 Provide a good standard of general ventilation (3 to 5 air changes per hour) E11
Engine lubricant service CS78	No other specific measures identified EI20
Manual CS34. Roller, brushing CS51	No other specific measures identified EI20
Spraying CS10	Carry out in a vented booth or extracted enclosure E57, or: G9 Minimise exposure by enclosing the operation or equipment and provide extract ventilation at openings E60 Avoid carrying out activities involving exposure for more than 1 hr OC27 , or: G9 Wear a respirator conforming to EN140 with Type A filter or better PPE22
Treatment by dipping and Pouring CS35	No other specific measures identified EI20
Storage CS67	Store substance within a closed system E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 1.2E+2 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 5.8E-2 Maximum daily site tonnage (kg/day) 365
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 365
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from wide dispersive use (regional use only) OOC7: 0.01 Release fraction to wastewater wide dispersive use OOC8: 0.01 Release fraction to soil from wide dispersive use (regional use only) OOC9: 0.01
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater [TCR1a] No wastewater treatment required [TCR6]. Treat air emission to provide a typical removal efficiency of (%): N/A Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency ≥ (%): 0.0 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ≥ (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils OMS2. Sludge should be incinerated, contained or reclaimed OMS3
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 5.7E+0 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3

Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i>
4.2. Environment	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) DSU4.</i>

Lubricant (high release) of White Mineral Oil (H304) (Professional)

Section 1	Exposure Scenario Title
Title	Lubricants – Professional: Low Environmental Release
Use Descriptor	Sector(s) of Use: 22
	Process Categories: 1, 2, 3, 4, 8a, 8b, 9, 13, 17, 20
	Environmental Release Categories: 8a, 8d
	Specific Environmental Release Category: ESVOC 8.6c.v1
Processes, tasks, activities covered	Covers the use of formulated lubricants in open systems including material transfers operations, operation of engines and similar articles, reworking on reject articles, equipment maintenance and disposal of waste oil.
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Product category	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
General exposures (closed systems) CS15	No other specific measures identified EI20
Operation of equipment containing engine oils and similar CS26. (Closed systems) CS107	No other specific measures identified EI20
General exposures (open systems) CS16	No other specific measures identified EI20
Bulk transfers CS14.Dedicated facility CS81	No other specific measures identified EI20
Filling / preparation of equipment from drums or containers. CS45. Dedicated facility CS81	No other specific measures identified EI20
Filling / preparation of equipment from drums or containers CS45. Non dedicated facility CS82	Avoid carrying out activities involving exposure for more than 1 hour OC27
Operation and lubrication of high energy open equipment CS17. Indoor OC8	Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings E60

Operation and lubrication of high energy open equipment CS17. Outdoor OC9	Ensure operation is undertaken outdoors E69. Avoid carrying out operation for more than 4 hours OC12 Limit the substance content in the product to 25 % OC18
Maintenance (of larger plant items) and machine set up CS77. Dedicated facility CS81. Elevated temperature CS111	Drain down system prior to equipment break-in or maintenance E65 Provide extract ventilation to emission points when contact with warm (>50oC) lubricant is likely) E67
Maintenance of small items CS18. Non-dedicated facility CS82. Elevated temperature CS111	Drain or remove substance from equipment prior to break-in or maintenance E81 Provide a good standard of general ventilation (3 to 5 air changes per hour) E11
Engine lubricant service CS78	No other specific measures identified EI20
Manual CS34. Roller, brushing CS51	No other specific measures identified EI20
Spraying CS10	Carry out in a vented booth or extracted enclosure E57, or: G9 Minimise exposure by enclosing the operation or equipment and provide extract ventilation at openings E60 Avoid carrying out activities involving exposure for more than 1 hr OC27 , or: G9 Wear a respirator conforming to EN140 with Type A filter or better PPE22
Treatment by dipping and Pouring CS35	No other specific measures identified EI20
Storage CS67	Store substance within a closed system E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 1.2E+2 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 5.8E-2 Maximum daily site tonnage (kg/day) 1.6E-1
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 365
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from wide dispersive use (regional use only) OOC7: 5.0E-3 Release fraction to wastewater wide dispersive use OOC8: 0.05 Release fraction to soil from wide dispersive use (regional use only) OOC9: 0.05
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater TCR1a No wastewater treatment required TCR6 Treat air emission to provide a typical removal efficiency of (%): N/A Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency ≥ (%): 0.0 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ≥ (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils OMS2. Sludge should be incinerated, contained or reclaimed OMS3
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 5.6E+0 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3

Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i>
4.2. Environment	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) DSU4.</i>

Laboratories of White Mineral Oil (H304) (Professional)

Section 1	Exposure Scenario Title
Title	Use in Laboratories – Professional
Use Descriptor	Sector(s) of Use: 22
	Process Categories: 10, 15
	Environmental Release Categories: 8a
	Specific Environmental Release Category: ESVOC 8.17a.v1
Processes, tasks, activities covered	Use of the substance within laboratory settings, including material transfers and equipment cleaning
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Product category	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
Laboratory activities CS36	No other specific measures identified EI20
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 1.0E+1 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 5.0E-3 Maximum daily site tonnage (kg/day) 1.4E-2
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 365
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from wide dispersive use (regional use only) OOC7: 0.5 Release fraction to wastewater wide dispersive use OOC8: 0.5 Release fraction to soil from wide dispersive use (regional use only) OOC9: 0
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1

Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater TCR1a No wastewater treatment required TCR6 Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 0.0 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils OMS2. Sludge should be incinerated, contained or reclaimed OMS3.
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 4.8E-1 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i>
4.2. Environment	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) DSU4.</i>

Laboratories of White Mineral Oil (H304) (Industrial)

Section 1	Exposure Scenario Title
Title	Use in Laboratories – Industrial
Use Descriptor	Sector(s) of Use: 3
	Process Categories: 10, 15
	Environmental Release Categories: 4
	Specific Environmental Release Category: Not Applicable
Processes, tasks, activities covered	Use of the substance within laboratory settings, including material transfers and equipment cleaning.
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Product category	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
Laboratory activities CS36	No other specific measures identified EI20
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 1.0E+1 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 2.0E+0 Maximum daily site tonnage (kg/day) 1.0E+2
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 20
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM): 0.025 Release fraction to wastewater from process (initial release prior to RMM): 0.02 Release fraction to soil from process (initial release prior to RMM): 0.0001
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1

Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater Sediment TCR1b If discharging to domestic sewage treatment plant, no onsite wastewater treatment required TCR10 Treat air emission to provide a typical removal efficiency of (%): 0 Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 18.4 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils OMS2. Sludge should be incinerated, contained or reclaimed OMS3.
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 2.4E+3 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i>
4.2. Environment	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3.</i>

Functional fluid of White Mineral Oil (H304) (Professional)

Section 1	Exposure Scenario Title
Title	Use as Functional Fluids – Professional
Use Descriptor	Sector(s) of Use: 22
	Process Categories: 1, 2, 3, 8a, 9, 20
	Environmental Release Categories: 9a, 9b
	Specific Environmental Release Category: ESVOC 9.13b.v1
Processes, tasks, activities covered	Use as functional fluids e.g. cable oils, transfer oils, insulators, refrigerants, hydraulic fluids in professional equipment including maintenance and related material transfers.
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Product category	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
Bulk transfers CS14 (closed systems) CS107	No other specific measures identified EI20
Drum/batch transfers CS8. Dedicated facility CS81	No other specific measures identified EI20
Filling of articles/equipment CS84. (closed systems) CS107	No other specific measures identified EI20
Filling / preparation of equipment from drums or containers CS45. Non-dedicated facilities CS82	No other specific measures identified EI20
General exposures (closed systems) CS15	No other specific measures identified EI20
General exposures (open systems) CS16. Elevated temperature CS111	Restrict area of openings and provide extract ventilation to emission points when substance handled at elevated temperatures E75
Remanufacture of reject articles CS19	No other specific measures identified EI20

Equipment cleaning and maintenance CS39	Drain down system prior to equipment break-in or maintenance E65
Storage CS67	Store substance within a closed system E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 2.3E+1 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 1.1E-2 Maximum daily site tonnage (kg/day) 3.1E-2
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 365
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from wide dispersive use (regional use only) OOC7: 0.05 Release fraction to wastewater wide dispersive use OOC8: 0.025 Release fraction to soil from wide dispersive use (regional use only) OOC9: 0.025
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater TCR1a No wastewater treatment required TCR6 Treat air emission to provide a typical removal efficiency of (%): N/A Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 0.0 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils OMS2. Sludge should be incinerated, contained or reclaimed OMS3.
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 1.1E+0 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i>

4.2. Environment	<p><i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) DSU4.</i></p>
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Functional fluid of White Mineral Oil (H304) (Industrial)

Section 1	Exposure Scenario Title
Title	Use as Functional Fluids – Industrial
Use Descriptor	Sector(s) of Use: 3
	Process Categories: 1, 2, 3, 4, 8a, 8b, 9
	Environmental Release Categories: 7
	Specific Environmental Release Category: ESVOC 7.13a.v1
Processes, tasks, activities covered	Use as functional fluids e.g. cable oils, transfer oils, coolants, insulators, refrigerants, hydraulic fluids in industrial equipment including maintenance and related material transfers
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Product category	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
Bulk transfers CS14 (closed systems) CS107	No other specific measures identified EI20
Drum/batch transfers CS8. Dedicated facility CS81	No other specific measures identified EI20
Filling of articles/equipment CS84. (closed systems) CS107	No other specific measures identified EI20
Filling / preparation of equipment from drums or containers CS45. Non-dedicated facilities CS82	No other specific measures identified EI20
General exposures (closed systems) CS15	No other specific measures identified EI20
General exposures (open systems) CS16. Elevated temperature CS111	Restrict area of openings and provide extract ventilation to emission points when substance handled at elevated temperatures E75
Remanufacture of reject articles CS19	No other specific measures identified EI20

Equipment cleaning and maintenance CS39	Drain down system prior to equipment break-in or maintenance E65
Storage CS67	Store substance within a closed system E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 1.4E+2 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 1.0E+1 Maximum daily site tonnage (kg/day) 5.0E+2
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 20
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM): 1.0E-4 Release fraction to wastewater from process (initial release prior to RMM): 1.0E-6 Release fraction to soil from process (initial release prior to RMM): 0.001
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater TCR1a Prevent discharge of undissolved substance to or recover from onsite wastewater TCR14 No wastewater treatment required TCR6 Treat air emission to provide a typical removal efficiency of (%): 0 Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency ≥ (%): 0.0 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ≥ (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils OMS2. Sludge should be incinerated, contained or reclaimed OMS3.
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 1.8E+4 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk</i>

	<i>Management Measures are based on qualitative risk characterisation. G37.</i>
4.2. Environment	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) DSU4.</i>

Formulation & (Re) packing of White Mineral Oil (H304) as Intermediate (Industrial)

Section 1	Exposure Scenario Title
Title	Formulation & (Re) packing of Substances and Mixtures – Industrial
Use Descriptor	Sector(s) of Use: 10
	Process Categories: 1, 2, 3, 4, 5, 8a, 8b, 9, 14, 15
	Environmental Release Categories: 2
	Specific Environmental Release Category: ESVOC 2.2.v1
Processes, tasks, activities covered	Formulation, packing and re-packing of the substance and its mixtures in batch or continuous operations, including storage, materials transfers, mixing, tableting, compression, pelletization, extrusion, large and small scale packing, maintenance, sampling and associated laboratory activities.
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Contributing Scenarios	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
General exposures (closed systems). CS15	No other specific measures identified. EI20
General exposures (open systems). CS16	No other specific measures identified. EI20
Batch processes at elevated temperatures. CS136. Use in contained batch processes. CS37	No other specific measures identified. EI20
Process sampling. CS2	No other specific measures identified. EI20
Laboratory activities. CS36	No other specific measures identified. EI20
Bulk transfers CS14. Dedicated facility. CS81	No other specific measures identified. EI20
Mixing operations (open system). CS30	No other specific measures identified. EI20

Transfer from/pouring from containers CS34. Manual CS22. Non-dedicated facility CS82	No other specific measures identified. EI20
Drum/batch transfers CS8. Dedicated facility CS81	No other specific measures identified. EI20
Production or preparation of articles by tableting, compression, extrusion or pelletisation CS100	No other specific measures identified. EI20
Drum and small package filing. CS6	No other specific measures identified. EI20
Equipment cleaning and Maintenance. CS39	Drain down system prior to equipment break-in or maintenance. ES65
Storage. CS67	Store substance within a closed system. E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 2.4E+4 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 2.4E+4 Maximum daily site tonnage (kg/day) 8.1E+4
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 300
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM) 2.5E-3 Release fraction to wastewater from process (initial release prior to RMM) 5.0E-6 Release fraction to soil from process (initial release prior to RMM) 0.0001
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used. TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater Sediment. TCR1b Prevent discharge of undissolved substance to or recover from onsite wastewater. TCR14 If discharging to domestic sewage treatment plant, no onsite wastewater treatment required. TCR10 Treat air emission to provide a typical removal efficiency of (%): 0 Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 18.4 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils. OMS2. Sludge should be incinerated, contained or reclaimed. OMS3
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater. STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 2.0E+6 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national regulations.ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations. ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.G21</i>

3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i>
4.2. Environment	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) DSU4.</i>

Explosives manufacture & use of White Mineral Oil (H304) (Professional)

Section 1	Exposure Scenario Title
Title	Explosives Manufacture and Use – Professional
Use Descriptor	Sector(s) of Use: 22
	Process Categories: 1, 3, 5, 8a, 8b
	Environmental Release Categories: 8e
	Specific Environmental Release Category: Not Applicable
Processes, tasks, activities covered	Covers exposures arising from the manufacture and use of slurry explosives (including materials transfer, mixing and charging) and equipment cleaning
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Product category	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
Bulk transfers CS14. Use in contained batch process CS37	No other specific measures identified EI20
Drum/batch transfers CS8. Non-dedicated facility CS82	Use drum pumps E53
Mixing operations (closed systems) CS29	No other specific measures identified EI20
Mixing operations (open systems) CS30	No other specific measures identified EI20
Material transfers CS3. Non-dedicated facility CS82	Ensure operation is undertaken outdoors E69. Avoid carrying out activities involving exposure for more than 4 hours OC28
Transfer from/pouring from Containers CS22. Non-dedicated facility CS82	Ensure operation is undertaken outdoors E69. Avoid carrying out activities involving exposure for more than 4 hours OC28
Equipment cleaning and maintenance CS39	Drain down system prior to equipment break-in or maintenance E65

Storage CS67	Store substance within a closed system E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 2.3E+1 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 1.1E-2 Maximum daily site tonnage (kg/day) 3.1E-2
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 365
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from wide dispersive use (regional use only) OOC7: 0.001 Release fraction to wastewater wide dispersive use OOC8: 0.02 Release fraction to soil from wide dispersive use (regional use only) OOC9: 0.01
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater TCR1a No wastewater treatment required TCR6 Treat air emission to provide a typical removal efficiency of (%): N/A Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency ≥ (%): 0.0 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ≥ (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils OMS2. Sludge should be incinerated, contained or reclaimed OMS3.
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 1.1E+0 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i>
4.2. Environment	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1.</i>

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3.

Distribution of White Mineral Oil (H304) (Industrial)

Section 1	Exposure Scenario Title
Title	Distribution of Substance – Industrial
Use Descriptor	Sector(s) of Use: 3
	Process Categories: 1, 2, 3, 4, 8a, 8b, 9, 15
	Environmental Release Categories: 4, 5, 6a, 6b, 6c, 6d, 7
	Specific Environmental Release Category: ESVOC 1.1b.v1
Processes, tasks, activities covered	Bulk loading (including marine vessel/barge, rail/road car and IBC loading) and repacking (including drums and small packs) of substance, including its sampling, storage, unloading, maintenance and associated laboratory activities. Excludes emissions during transport.
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Contributing Scenarios	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
General exposures (closed systems). CS15	No other specific measures identified. EI20
General exposures (open systems). CS16	No other specific measures identified. EI20
Process sampling. CS2	No other specific measures identified. EI20
Laboratory activities. CS36	No other specific measures identified. EI20
Bulk transfers CS14 (closed systems). CS107	No other specific measures identified. EI20
No other specific measures identified. EI20, CS14. Bulk transfers (open systems). CS108	No other specific measures identified. EI20
Drum and small package. CS6	No other specific measures identified. EI20

Equipment cleaning and maintenance. CS39	Drain down system prior to equipment break-in or maintenance. ES65
Storage. CS67	Store substance within a closed system. E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 2.4E+4 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 4.9E+1 Maximum daily site tonnage (kg/day) 2.4E+3
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 20
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior RMM) 1.0E-4 Release fraction to wastewater from process (initial release prior to RMM) 1.0E-7 Release fraction to soil from process (initial release prior to RMM) 0.00001
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used. TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater. TCR1a No wastewater treatment required. TCR6 Treat air emission to provide a typical removal efficiency of (%): 90 Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 0.0 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils. OMS2. Sludge should be incinerated, contained or reclaimed. OMS3
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater. STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 8.9E+4 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national regulations. ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations. ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i>

4.2. Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (<http://cefic.org/en/reach-for-industries-libraries.html>) DSU4.

Cleaning Agent of White Mineral Oil (H304) (Professional)

Section 1	Exposure Scenario Title
Title	Use in Cleaning Agents –Professional
Use Descriptor	Sector(s) of Use: 22
	Process Categories: 1, 2, 3, 4, 5, 8a, 8b, 10, 11, 13, 15, 19
	Environmental Release Categories: 8a, 8d
	Specific Environmental Release Category: ESVOC 8.4b.v1
Processes, tasks, activities covered	Covers the use as a component of cleaning products including pouring/unloading from drums or containers; and exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping automated and by hand).
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Contributing Scenarios	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
Filling / preparation of equipment from drums or containers CS45	Avoid carrying out activities involving exposure for more than 1 hours OC27
Automated process with (semi) closed systems. CS93. Use in contained systems CS38	No other specific measures identified EI20
Semi Automated process. (e.g.: Semi automatic application of floor care and maintenance products) CS76	No other specific measures identified EI20
Filling / preparation of equipment from drums or containers CS45. Non-dedicated facility CS82. Outdoor OC9	Use drum pumps E53
Manual CS34. Surfaces CS48 Cleaning CS47. Dipping, immersion and pouring CS4	No other specific measures identified EI20
Cleaning with low-pressure washers CS42. Rolling, Brushing CS51	No other specific measures identified EI20
CS44 Cleaning with high pressure washers	No other specific measures identified EI20

CS10 Spraying (indoor / outdoor)	
Treatment by dipping and pouring CS34. Surfaces CS48. Cleaning CS47. Wiping CS50. Rolling, Brushing CS51	No other specific measures identified EI20
Degreasing small objects in cleaning station CS41	No other specific measures identified EI20
Ad hoc manual application via trigger sprays, dipping, etc CS27	No other specific measures identified EI20
Hand-mixing with intimate contact and only PPE available	No other specific measures identified EI20
Cleaning of medical devices CS74	No other specific measures identified EI20
Equipment cleaning and maintenance CS39	Drain down system prior to equipment break-in or maintenance E65
Storage CS67	Store substance within a closed system E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 2.3E+1 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 1.1E-2 Maximum daily site tonnage (kg/day) 3.1E-2
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 365
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from wide dispersive use (regional use only) OOC7: 0.02 Release fraction to wastewater wide dispersive use OOC8: 0.000001 Release fraction to soil from wide dispersive use (regional use only) OOC9: 0
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater TCR1a No wastewater treatment required TCR6 Treat air emission to provide a typical removal efficiency of (%): N/A Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 0.0 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils [OMS2]. Sludge should be incinerated, contained or reclaimed OMS3
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 1.1E+0 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations. ERW1

Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i>
4.2. Environment	<i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) DSU4.</i>

Cleaning Agent of White Mineral Oil (H304) (Industrial)

Section 1	Exposure Scenario Title
Title	Uses in Cleaning Agents – Industrial
Use Descriptor	Sector(s) of Use: 3
	Process Categories: 1, 2, 3, 4, 7, 8a, 8b, 10, 13
	Environmental Release Categories: 4
	Specific Environmental Release Category: ESVOC 4.4a.v1
Processes, tasks, activities covered	Covers the use as a component of cleaning products including transfer from storage, pouring/unloading from drums or containers. Exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping, automated and by hand), related equipment cleaning and maintenance.
Assessment Method	See Section 3.
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	
Physical form of product	Liquid, with potential for aerosol generation. CS138
Vapour pressure (kPa)	Liquid, vapour pressure < 0.5 kPa at STP. OC3
Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently). G13
Frequency and duration of use/exposure	Covers daily exposures up to 8 hours (unless stated differently). G2
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented. G1
Contributing Scenarios	Specific Risk Management Measures and Operating Conditions (only required controls to demonstrate safe use listed)
Bulk transfers CS14. Dedicated facility CS81	No other specific measures identified EI20
Automated process with (semi) closed systems. CS93. Use in contained systems CS38	No other specific measures identified EI20
Filling / preparation of equipment from drums or containers CS45. Dedicated facility CS81	No other specific measures identified EI20
Automated process with (semi) closed systems. CS93. Use in contained batch Processes CS37. Elevated Temperature CS111	No other specific measures identified EI20
Dipping, immersion and Pouring CS4	No other specific measures identified EI20
Cleaning with low-pressure Washers CS42	No other specific measures identified EI20

Cleaning with high pressure Washers CS44	Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings E60
Manual CS34. Cleaning CS47. Surfaces CS48. no spraying CS60	No other specific measures identified EI20
Equipment cleaning and Maintenance CS39	Drain down system prior to equipment break-in or maintenance E65
Storage CS67	Store substance within a closed system E84
Section 2.2	Control of environmental exposure
Product characteristics	Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].
Amounts used	Fraction of EU tonnage used in region 0.1 Regional use tonnage (tonnes/year) 2.3E+1 Fraction of Regional tonnage used locally 1 Annual site tonnage (tonnes/year) 2.3E+1 Maximum daily site tonnage (kg/day) 1.1E+3
Frequency and duration of use	Continuous release. FD2 Emission days (days/year) 20
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 Local marine water dilution factor 100
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM): 1.0 Release fraction to wastewater from process (initial release prior to RMM): 1.0E-7 Release fraction to soil from process (initial release to RMM): 0
Technical conditions and measures at process level (source) to prevent release	Common practices vary across sites thus conservative process release estimates used TCS1
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Risk from environmental exposure is driven by Freshwater TCR1a Prevent discharge of undissolved substance to or recover from onsite wastewater TCR14. No wastewater treatment required TCR6 Treat air emission to provide a typical removal efficiency of (%): 70 Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%): 0.0 If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0.0
Organisation measures to prevent/limit release from site	Do not apply industrial sludge to natural soils [OMS2]. Sludge should be incinerated, contained or reclaimed OMS3
Conditions and measures related to municipal sewage treatment plant	Not applicable as there is no release to wastewater STP1 Estimated substance removal from wastewater via domestic sewage treatment (%): 96.6 Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%): 96.6 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d): 4.1E+4 Assumed domestic sewage treatment plant flow (m3/d): 2000
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national Regulations ETW3
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations. ERW1
Section 3	Exposure Estimation
3.1. Health	<i>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.G21</i>
3.2. Environment	<i>The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model. EE2</i>
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	<i>Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management</i>

	<p><i>Measures/Operational Conditions outlined in Section 2 are implemented. G22. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23. Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.</i></p>
<p>4.2. Environment</p>	<p><i>Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures DSU1. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination DSU2. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination DSU3. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) DSU4.</i></p>