



SAFETY DATA SHEET OXIDET DM-20

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name OXIDET DM-20

Product number 48336

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Surfactant Soaps Detergent production Thickener Personal Care Chemical Intermediate
Industrial application
For further information, see attached Exposure Scenario.

1.3. Details of the supplier of the safety data sheet

Supplier Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
BD3 7AY
+44 1274 267300
+44 1274 267306
SDS.EMEA@univarsolutions.com

1.4. Emergency telephone number

Emergency telephone SGS - +32 (0)3 575 55 55 (24h)

Sds No. 48336

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Dam. 1 - H318

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411

2.2. Label elements

Hazard pictograms



Signal word Danger

Hazard statements H315 Causes skin irritation.
H318 Causes serious eye damage.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

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Precautionary statements

P273 Avoid release to the environment.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER/ doctor.
 P501 Dispose of contents/ container in accordance with local regulations.

Contains DODECYL DIMETHYLAMINE OXIDE

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

DODECYL DIMETHYLAMINE OXIDE		25-100%
CAS number: 1643-20-5	EC number: 216-700-6	REACH registration number: 01-2120068065-58-XXXX
M factor (Acute) = 1		
Classification Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411		

The full text for all hazard statements is displayed in Section 16.

Composition comments The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Get medical attention immediately. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If it is suspected that airborne contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. If breathing stops, provide artificial respiration. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. Development of symptoms may be delayed for 24 to 48 hours. Keep affected person under observation.

Ingestion Get medical attention immediately. Rinse mouth thoroughly with water. Remove any dentures. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Give plenty of water to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated by a physician. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.

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Skin contact	Get medical attention immediately. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated by a physician. Wash clothing and clean shoes thoroughly before reuse.
Eye contact	Get medical attention immediately. Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes. Chemical burns must be treated by a physician.
Protection of first aiders	No action shall be taken without appropriate training or involving any personal risk. If it is suspected that airborne contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves.

4.2. Most important symptoms and effects, both acute and delayed

Ingestion	Overexposure may cause the following adverse effects: Stomach pain.
Skin contact	Causes skin irritation. Overexposure may cause the following adverse effects: Pain or irritation. Redness. Blistering may occur.
Eye contact	Causes serious eye damage. May cause permanent damage if eye is not immediately irrigated. Overexposure may cause the following adverse effects: Pain. Profuse watering of the eyes. Redness.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically. Development of symptoms may be delayed for 24 to 48 hours. Keep affected person under observation.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up. Very toxic to aquatic life with long lasting effects. Toxic to aquatic life with long lasting effects. Fire-water run-off in sewers may create fire or explosion hazard. Avoid the spillage or runoff entering drains, sewers or watercourses. When heated and in case of fire, toxic vapours/gases may be formed.
Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of the following substances: Carbon. Nitrogen.

5.3. Advice for firefighters

Protective actions during firefighting	Evacuate area. No action shall be taken without appropriate training or involving any personal risk. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Contain and collect extinguishing water.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

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6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions No action shall be taken without appropriate training or involving any personal risk. Evacuate area. Keep unnecessary and unprotected personnel away from the spillage. Do not touch or walk into spilled material. Avoid breathing vapour/spray. Provide adequate ventilation. If ventilation is inadequate, suitable respiratory protection must be worn. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet.

6.2. Environmental precautions

Environmental precautions Very toxic to aquatic life. Toxic to aquatic life with long lasting effects. Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if safe to do so. Move containers from spillage area. Approach the spillage from upwind. Avoid the spillage or runoff entering drains, sewers or watercourses. Flush contaminated area with plenty of water. Absorb spillage with inert, damp, non-combustible material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin, eyes and clothing. Do not breathe vapour/spray. Avoid release to the environment. If ventilation is inadequate, suitable respiratory protection must be worn. Container must be kept tightly closed when not in use. Product residues retained in emptied containers can be hazardous. Do not reuse empty containers.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas. Observe good chemical hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from sunlight. Store away from incompatible materials (see Section 10). Keep away from food and drink. Store locked up. Container must be kept tightly closed when not in use. Only store in correctly labelled containers. Use appropriate containment to avoid environmental contamination.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Ingredient comments No exposure limits known for ingredient(s).

DODECYL DIMETHYLAMINE OXIDE (CAS: 1643-20-5)

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DNEL

Workers - Inhalation; Long term systemic effects: 6.2 mg/m³
 Workers - Dermal; Long term systemic effects: 11 mg/kg/day
 Consumer - Inhalation; Long term systemic effects: 1.53 mg/m³
 Consumer - Dermal; Long term systemic effects: 5.5 mg/kg/day
 Consumer - Oral; Long term systemic effects: 0.44 mg/kg/day

PNEC

- Fresh water; 0.0335 mg/l
 - marine water; 0.00335 mg/l
 - STP; 24 mg/l
 - Sediment (Freshwater); 5.4 mg/kg
 - Sediment (Marinewater); 0.54 mg/kg
 - Soil; 1.02 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Wear chemical splash goggles. or Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection

The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. The selected gloves should have a breakthrough time of at least 8 hours. Polyvinyl chloride (PVC). To protect hands from chemicals, gloves should comply with European Standard EN374.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

Hygiene measures

Wash at the end of each work shift and before eating, smoking and using the toilet. Take off immediately all contaminated clothing and wash it before reuse. When using do not eat, drink or smoke. Provide eyewash station and safety shower.

Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. If ventilation is inadequate, suitable respiratory protection must be worn. EN 136/140/141/145/143/149

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Liquid.

Colour

Colourless to pale yellow.

Odour

No information available.

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Odour threshold	No information available.
pH	pH (diluted solution): 6.5 - 7.5 (9% w/w)
Melting point	-5°C
Initial boiling point and range	No information available.
Flash point	> 100°C Closed cup.
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Other flammability	No information available.
Vapour pressure	No information available.
Vapour density	No information available.
Relative density	0.973 @ 20°C
Bulk density	No information available.
Solubility(ies)	Soluble in water.
Partition coefficient	No information available.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	10-50 cP @ 20°C
Explosive properties	No information available.
Explosive under the influence of a flame	No information available.
Oxidising properties	No information available.

9.2. Other information

Other information	No information required.
Refractive index	No information available.
Particle size	No information available.
Molecular weight	No information available.
Volatility	No information available.
Saturation concentration	No information available.
Critical temperature	No information available.
Volatile organic compound	No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No test data specifically related to reactivity available for this product or its ingredients.
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10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Under normal conditions of storage and use, no hazardous reactions will occur.

10.4. Conditions to avoid

Conditions to avoid None known.

10.5. Incompatible materials

Materials to avoid None known.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of the following substances: Carbon. Nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects No information available.

Acute toxicity - oral

Notes (oral LD₅₀) No information available.

ATE oral (mg/kg) 4,256.0

Acute toxicity - dermal

Notes (dermal LD₅₀) No information available.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) No information available.

Skin corrosion/irritation

Animal data Causes skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation No information available.

Germ cell mutagenicity

Genotoxicity - in vitro No information available.

Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility No information available.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

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STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard No information available.

Inhalation Gas or vapour in high concentrations may irritate the respiratory system.

Ingestion Overexposure may cause the following adverse effects: Stomach pain.

Skin contact Causes skin irritation. Overexposure may cause the following adverse effects: Pain or irritation. Redness. Blistering may occur.

Eye contact Causes serious eye damage. May cause permanent damage if eye is not immediately irrigated. Overexposure may cause the following adverse effects: Pain. Redness. Profuse watering of the eyes.

Toxicological information on ingredients.

DODECYL DIMETHYLAMINE OXIDE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,064.0

Species Rat

Notes (oral LD₅₀) Harmful if swallowed.

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >2000 mg/kg, Dermal, Rat

Skin corrosion/irritation

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation Not sensitising. Guinea pig

Germ cell mutagenicity

Genotoxicity - in vitro OECD 471 Bacterial reverse mutation test: Negative.

Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility No information available.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

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STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard No information available.

Inhalation Gas or vapour in high concentrations may irritate the respiratory system.

Ingestion Harmful if swallowed.

Skin contact Causes skin irritation.

Eye contact Causes serious eye damage.

SECTION 12: Ecological information

Ecotoxicity Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Ecological information on ingredients.

DODECYL DIMETHYLAMINE OXIDE

Ecotoxicity Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

12.1. Toxicity

Toxicity Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Acute aquatic toxicity

Acute toxicity - fish No information available.

Ecological information on ingredients.

DODECYL DIMETHYLAMINE OXIDE

Toxicity Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Acute toxicity - fish LC₅₀, 96 hours: 31.8 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 2.9 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: 0.2 mg/l, Algae

Chronic aquatic toxicity

Chronic toxicity - fish early life stage NOEC, 302 days: 0.42 mg/l, Fish

Chronic toxicity - aquatic invertebrates NOEC, 21 days: 0.7 mg/l, Daphnia magna

12.2. Persistence and degradability

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Persistence and degradability This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request, or at the request of a detergent manufacturer.

Ecological information on ingredients.

DODECYL DIMETHYLAMINE OXIDE

Persistence and degradability The product is readily biodegradable.

Biodegradation - Degradation 73%: 57 days

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient No information available.

Ecological information on ingredients.

DODECYL DIMETHYLAMINE OXIDE

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient log Pow: 1.85

12.4. Mobility in soil

Mobility The product is soluble in water.

Ecological information on ingredients.

DODECYL DIMETHYLAMINE OXIDE

Mobility No information available.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

DODECYL DIMETHYLAMINE OXIDE

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste. Do not puncture or incinerate, even when empty.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General Wear protective clothing as described in Section 8 of this safety data sheet.

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14.1. UN number

UN No. (ADR/RID)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
UN No. (ADN)	3082

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS DODECYL DIMETHYLAMINE OXIDE)
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS DODECYL DIMETHYLAMINE OXIDE)
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS DODECYL DIMETHYLAMINE OXIDE)
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS DODECYL DIMETHYLAMINE OXIDE)

14.3. Transport hazard class(es)

ADR/RID class	9
ADR/RID classification code	M6
ADR/RID label	9
IMDG class	9
ICAO class/division	9
ADN class	9

Transport labels



14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3
Emergency Action Code	•3Z

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Hazard Identification Number 90
(ADR/RID)

Tunnel restriction code (-)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78
and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
Commission Regulation (EU) No 2015/830 of 28 May 2015.
This product may impact SEVESO storage regulations.

Health and environmental listings

This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request, or at the request of a detergent manufacturer.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.

Canada - DSL/NDL

All the ingredients are listed or exempt.
DSL

US - TSCA

All the ingredients are listed or exempt.

Australia - AICS

All the ingredients are listed or exempt.

Japan - ENCS

All the ingredients are listed or exempt.

Korea - KECI

All the ingredients are listed or exempt.

China - IECSC

All the ingredients are listed or exempt.

Philippines – PICCS

All the ingredients are listed or exempt.

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New Zealand - NZIOC

All the ingredients are listed or exempt.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	ATE: Acute Toxicity Estimate. ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. CAS: Chemical Abstracts Service. DNEL: Derived No Effect Level. IATA: International Air Transport Association. IMDG: International Maritime Dangerous Goods. Kow: Octanol-water partition coefficient. LC₅₀: Lethal Concentration to 50 % of a test population. LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose). PBT: Persistent, Bioaccumulative and Toxic substance. PNEC: Predicted No Effect Concentration. REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail. vPvB: Very Persistent and Very Bioaccumulative. IARC: International Agency for Research on Cancer. MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. cATpE: Converted Acute Toxicity Point Estimate. BCF: Bioconcentration Factor. BOD: Biochemical Oxygen Demand. EC₅₀: 50% of maximal Effective Concentration. LOAEC: Lowest Observed Adverse Effect Concentration. LOAEL: Lowest Observed Adverse Effect Level. NOAEC: No Observed Adverse Effect Concentration. NOAEL: No Observed Adverse Effect Level. NOEC: No Observed Effect Concentration. LOEC: Lowest Observed Effect Concentration. DMEL: Derived Minimal Effect Level. EL50: Exposure Limit 50 hPa: Hectopascal LL50: Lethal Loading fifty OECD: Organisation for Economic Co-operation and Development POW: Octanol-water partition coefficient SCBA: self-contained breathing apparatus STP: Sewage Treatment Plant VOC: Volatile Organic Compounds
Classification abbreviations and acronyms	Acute Tox. = Acute toxicity Aquatic Acute = Hazardous to the aquatic environment (acute) Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Key literature references and sources for data	Supplier's information.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	08/04/2020

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Version number	5.000
Supersedes date	01/07/2019
SDS number	48336
SDS status	Approved.
Hazard statements in full	H302 Harmful if swallowed. H315 Causes skin irritation. H318 Causes serious eye damage. H400 Very toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects.
Signature	Lisa Bland



Exposure scenario Manufacture of substance

Identification

Product name	Dodecyltrimethylamine oxide
REACH registration number	01-2120068065-58-XXXX
CAS number	1643-20-5
EC number	216-700-6
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Manufacture of substance
Product category	PC35 Washing and cleaning products
Main sector	SU3 Industrial uses
Sector of use	SU8 Manufacture of bulk, large-scale chemicals (including petroleum products)

Environment

Environmental release category	ERC1 Manufacture of the substance
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Worker

Process category	PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
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2. Conditions of use affecting exposure (Industrial - Environment 1)

Frequency and duration of use

Emission days: 134 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air	Release fraction to air from process (initial release prior to RMM): 0%
Emission factor - water	Release fraction to wastewater from process (initial release prior to RMM): 0.1%
Emission factor - soil	Not applicable - no direct release to soil.

Manufacture of substance

Environmental factors not influenced by risk management measures

Dilution Receiving surface water flow: 680000 m³/day

Risk management measures

STP type Municipal STP.

STP details Estimated substance removal from wastewater via on-site sewage treatment: >95%
Assumed domestic sewage treatment plant flow: 20000 m³/day

Conditions and measures related to external treatment of waste for disposal

Waste treatment External treatment and disposal of waste should comply with applicable local and/or national regulations.

2. Conditions of use affecting exposure (Workers - Health 1)

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting Indoor.

Ventilation rate Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc.
Controlled ventilation means air is supplied or removed by a powered fan.

Technical conditions and measures at process level (source) to prevent release

Technical protective measures Handle substance within a closed system.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures Assumes a good basic standard of occupational hygiene is implemented. Ensure operatives are trained to minimise exposures. Ensure control measures are regularly inspected and maintained.

Risk management measures

Wear suitable gloves (tested to EN374), coverall and eye protection.

3. Exposure estimation (Environment 1)

Assessment method EUSES v2.1

4. Guidance to check compliance with the exposure scenario (Environment 1)

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination. Predicted exposures are not expected to exceed the applicable exposure limits (given in Section 8 of the SDS) when the operational conditions/risk management measures given in Section 2 are implemented.

3. Exposure estimation (Health 1)

Assessment method Used ECETOC TRA model.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.



Exposure scenario Formulation

Identification

Product name	Dodecyldimethylamine oxide
REACH registration number	01-2120068065-58-XXXX
CAS number	1643-20-5
EC number	216-700-6
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Formulation
Product category	PC21 Laboratory chemicals. PC25 Metal working fluids. PC31 Polishes and wax blends. PC35 Washing and cleaning products PC37 Water treatment chemicals. PC39 Cosmetics, personal care.
Main sector	SU3 Industrial uses
Sector of use	SU10 Formulation [mixing] of preparations and/or re-packaging

Environment

Environmental release category	ERC2 Formulation into mixture
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Worker

Formulation

Process category	PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC5 Mixing or blending in batch processes PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing) PROC14 Tableting, compression, extrusion, pelletisation, granulation PROC15 Use as laboratory reagent.
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2. Conditions of use affecting exposure (Industrial - Environment 1)

Amounts used

Annual amount per site: 800 tonnes

Daily amount per site: 16700 kg

Frequency and duration of use

Emission days: 220 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air Release fraction to air from process (initial release prior to RMM): 0%

Emission factor - water Marine water
Release fraction to wastewater from process (initial release prior to RMM): 0.1%

Fresh water
Release fraction to wastewater from process (initial release prior to RMM): 0.2%

Emission factor - soil Not applicable - no direct release to soil.

Environmental factors not influenced by risk management measures

Dilution Receiving surface water flow: 18000 m³/day

Risk management measures

STP type Municipal STP.

STP details Assumed domestic sewage treatment plant flow: 20000 m³/day

Conditions and measures related to external treatment of waste for disposal

Waste treatment External treatment and disposal of waste should comply with applicable local and/or national regulations.

2. Conditions of use affecting exposure (Workers - Health 1)

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Other given operational conditions affecting workers exposure

Setting Indoor.

Formulation

Ventilation rate Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan.

Technical conditions and measures at process level (source) to prevent release

Technical protective measures Formulation activity is assumed to be a predominantly enclosed process.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures Assumes a good basic standard of occupational hygiene is implemented. Ensure operatives are trained to minimise exposures. Ensure control measures are regularly inspected and maintained.

Risk management measures

Wear suitable gloves (tested to EN374), coverall and eye protection.

3. Exposure estimation (Environment 1)

Assessment method EUSES v2.1

4. Guidance to check compliance with the exposure scenario (Environment 1)

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination. Predicted exposures are not expected to exceed the applicable exposure limits (given in Section 8 of the SDS) when the operational conditions/risk management measures given in Section 2 are implemented.

3. Exposure estimation (Health 1)

Assessment method Used ECETOC TRA model.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.



Exposure scenario Industrial Use

Identification

Product name	Dodecyldimethylamine oxide
REACH registration number	01-2120068065-58-XXXX
CAS number	1643-20-5
EC number	216-700-6
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Industrial Use
Product category	PC25 Metal working fluids. PC35 Washing and cleaning products PC37 Water treatment chemicals.
Main sector	SU3 Industrial uses

Environment

Environmental release category	ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
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Worker

Process category	PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC4 Chemical production where opportunity for exposure arises PROC7 Industrial spraying PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC10 Roller application or brushing PROC13 Treatment of articles by dipping and pouring. PROC15 Use as laboratory reagent. PROC17 Lubrication at high energy conditions in metal working operations
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2. Conditions of use affecting exposure (Industrial - Environment 1)

Amounts used

Industrial Use

Annual amount per site: 2.25 tonnes

Daily amount per site: 10 kg

Frequency and duration of use

Emission days: 220 days/year

Other given operational conditions affecting environmental exposure

Emission factor - air Release fraction to air from process (initial release prior to RMM): 0%

Emission factor - water Release fraction to wastewater from process (initial release prior to RMM): 100%

Emission factor - soil Not applicable - no direct release to soil.

Environmental factors not influenced by risk management measures

Dilution Receiving surface water flow: 18000 m³/day

Risk management measures

STP type Municipal STP.

STP details Assumed domestic sewage treatment plant flow: 20000 m³/day

Conditions and measures related to external treatment of waste for disposal

Waste treatment External treatment and disposal of waste should comply with applicable local and/or national regulations.

2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Concentration details Industrial use of food, beverage and pharmacos products Industrial use of laundry products
Industrial use of vehicle cleaning products Industrial use of water treatment products
Concentration of substance in product: 5%

Industrial use of metal treatment products Industrial use of façade/surface cleaning products
Concentration of substance in product: 15%

Frequency and duration of use

Industrial Use

Covers daily exposures up to 8 hours (unless stated differently).

Industrial use of laundry products

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

Application duration: 15 minutes per day

Industrial use of vehicle cleaning products

PROC7 Industrial spraying

Application duration: 16 minutes per day

Industrial use of vehicle cleaning products

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

Application duration: 30 minutes per day

Industrial use of food, beverage and pharmacos products

Industrial use of metal treatment products

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

Application duration: 60 minutes per day

Industrial use of water treatment products

Industrial use of façade/surface cleaning products

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

Application duration: 10 minutes per day

PROC15 Use as laboratory reagent.

Application duration: 40 minutes per day

Other given operational conditions affecting workers exposure

Setting Indoor/outdoor use.

Ventilation rate Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc.
Controlled ventilation means air is supplied or removed by a powered fan.

Technical conditions and measures at process level (source) to prevent release

Technical protective measures Formulation activity is assumed to be a predominantly enclosed process.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures Assumes a good basic standard of occupational hygiene is implemented. Ensure operatives are trained to minimise exposures. Ensure control measures are regularly inspected and maintained.

Risk management measures

Wear suitable gloves (tested to EN374), coverall and eye protection.

Industrial use of vehicle cleaning products

Industrial use of food, beverage and pharmacos products

Industrial use of façade/surface cleaning products

Wear suitable respiratory protection.

PROC13 Treatment of articles by dipping and pouring.

PROC15 Use as laboratory reagent.

Wear suitable respiratory protection.

3. Exposure estimation (Environment 1)

Assessment method EUSES v2.1

Industrial Use

4. Guidance to check compliance with the exposure scenario (Environment 1)

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination. Predicted exposures are not expected to exceed the applicable exposure limits (given in Section 8 of the SDS) when the operational conditions/risk management measures given in Section 2 are implemented.

3. Exposure estimation (Health 1)

Assessment method Used ECETOC TRA model.

4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.



Exposure scenario

Professional Use

Identification

Product name	Dodecyltrimethylamine oxide
REACH registration number	01-2120068065-58-XXXX
CAS number	1643-20-5
EC number	216-700-6
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Professional Use
Product category	PC21 Laboratory chemicals. PC31 Polishes and wax blends. PC35 Washing and cleaning products PC39 Cosmetics, personal care.
Main sector	SU22 Professional uses

Environment

Environmental release category	ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
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Worker

Process category	PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC4 Chemical production where opportunity for exposure arises PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC10 Roller application or brushing PROC11 Non industrial spraying PROC13 Treatment of articles by dipping and pouring. PROC15 Use as laboratory reagent.
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2. Conditions of use affecting exposure (Industrial - Environment 1)

Amounts used

Professional Use

Annual amount for wide dispersive uses: 240 tonnes

Other given operational conditions affecting environmental exposure

Emission factor - air	Release fraction to air from process (initial release prior to RMM): 0%
Emission factor - water	Release fraction to wastewater from process (initial release prior to RMM): 100%
Emission factor - soil	Not applicable - no direct release to soil.

Environmental factors not influenced by risk management measures

Dilution	Receiving surface water flow: 18000 m ³ /day
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Risk management measures

STP type	Municipal STP.
STP details	Assumed domestic sewage treatment plant flow: 20000 m ³ /day

Conditions and measures related to external treatment of waste for disposal

Waste treatment	External treatment and disposal of waste should comply with applicable local and/or national regulations.
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2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Concentration details	Concentration of substance in product: 15%
	PROC11 Non industrial spraying Maximum concentration after dilution for use: 7.5 %

Frequency and duration of use

Professional Use

Covers daily exposures up to 8 hours (unless stated differently).

Professional use of laundry products

PROC4 Chemical production where opportunity for exposure arises

Professional use of dishwash products

Professional use of façade/surface cleaning products

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

Application duration: 15 minutes per day

Professional use of laundry products

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC11 Non industrial spraying

Application duration: 20 minutes per day

Professional use of dishwash products

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

Professional use of maintenance products

PROC13 Treatment of articles by dipping and pouring.

Application duration: 5 minutes per day

Professional use of dishwash products

PROC10 Roller application or brushing

Application duration: 4 hours/day

Professional use of general surface cleaning products

Professional use of floor care products

Professional use of medical devices

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

Application duration: 16 minutes per day

Professional use of general surface cleaning products

Professional use of floor care products

Professional use of vehicle cleaning products

Professional use of medical devices

PROC11 Non industrial spraying

Professional use of maintenance products

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

Use in laboratories

PROC15 Use as laboratory reagent.

Application duration: 40 minutes per day

Professional use of general surface cleaning products

PROC13 Treatment of articles by dipping and pouring.

Professional use of floor care products

PROC10 Roller application or brushing

Application duration: 8 minutes per day

Professional use of maintenance products

PROC11 Non industrial spraying

Application duration: 10 minutes per day

Professional use of vehicle cleaning products

Professional Use

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

Application duration: 30 minutes per day

Professional use of medical devices

PROC13 Treatment of articles by dipping and pouring.

Application duration: 60 minutes per day

Other given operational conditions affecting workers exposure

Setting	Indoor/outdoor use.
Ventilation rate	Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan.

Technical conditions and measures at process level (source) to prevent release

Technical protective measures Formulation activity is assumed to be a predominantly enclosed process.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures	Assumes a good basic standard of occupational hygiene is implemented. Ensure operatives are trained to minimise exposures. Ensure control measures are regularly inspected and maintained.
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Risk management measures

Wear suitable gloves (tested to EN374), coverall and eye protection.

3. Exposure estimation (Environment 1)

Assessment method	EUSES v2.1
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4. Guidance to check compliance with the exposure scenario (Environment 1)

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination. Predicted exposures are not expected to exceed the applicable exposure limits (given in Section 8 of the SDS) when the operational conditions/risk management measures given in Section 2 are implemented.

3. Exposure estimation (Health 1)

Assessment method	Used ECETOC TRA model.
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4. Guidance to check compliance with the exposure scenario (Health 1)

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.



Exposure scenario Consumer Use

Identification

Product name	Dodecyltrimethylamine oxide
REACH registration number	01-2120068065-58-XXXX
CAS number	1643-20-5
EC number	216-700-6
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Consumer Use
Product category	PC35 Washing and cleaning products
Main sector	SU21 Consumer uses

Environment

Environmental release category	ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
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Worker

Process category	PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions PROC4 Chemical production where opportunity for exposure arises PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC10 Roller application or brushing PROC11 Non industrial spraying PROC13 Treatment of articles by dipping and pouring. PROC15 Use as laboratory reagent.
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2. Conditions of use affecting exposure (Industrial - Environment 1)

Amounts used

Annual amount for wide dispersive uses: 800 tonnes

Other given operational conditions affecting environmental exposure

Consumer Use

Emission factor - air	Release fraction to air from process (initial release prior to RMM): 0%
Emission factor - water	Release fraction to wastewater from process (initial release prior to RMM): 100%
Emission factor - soil	Not applicable - no direct release to soil.

Environmental factors not influenced by risk management measures

Dilution	Receiving surface water flow: 18000 m ³ /day
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Risk management measures

STP type	Municipal STP.
STP details	Assumed domestic sewage treatment plant flow: 20000 m ³ /day

Conditions and measures related to external treatment of waste for disposal

Waste treatment	External treatment and disposal of waste should comply with applicable local and/or national regulations.
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2. Conditions of use affecting exposure (Workers - Health 1)

Product characteristics

Concentration details	Concentration of substance in product: 15%
	PROC11 Non industrial spraying Maximum concentration after dilution for use: 7.5 %

Frequency and duration of use

Consumer Use

Covers daily exposures up to 8 hours (unless stated differently).

Professional use of laundry products

PROC4 Chemical production where opportunity for exposure arises

Professional use of dishwash products

Professional use of façade/surface cleaning products

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

Application duration: 15 minutes per day

Professional use of laundry products

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC11 Non industrial spraying

Application duration: 20 minutes per day

Professional use of dishwash products

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

Professional use of maintenance products

PROC13 Treatment of articles by dipping and pouring.

Application duration: 5 minutes per day

Professional use of dishwash products

PROC10 Roller application or brushing

Application duration: 4 hours/day

Professional use of general surface cleaning products

Professional use of floor care products

Professional use of medical devices

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

Application duration: 16 minutes per day

Professional use of general surface cleaning products

Professional use of floor care products

Professional use of vehicle cleaning products

Professional use of medical devices

PROC11 Non industrial spraying

Professional use of maintenance products

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

Use in laboratories

PROC15 Use as laboratory reagent.

Application duration: 40 minutes per day

Professional use of general surface cleaning products

PROC13 Treatment of articles by dipping and pouring.

Professional use of floor care products

PROC10 Roller application or brushing

Application duration: 8 minutes per day

Professional use of maintenance products

PROC11 Non industrial spraying

Application duration: 10 minutes per day

Professional use of vehicle cleaning products

Consumer Use

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

Application duration: 30 minutes per day

Professional use of medical devices

PROC13 Treatment of articles by dipping and pouring.

Application duration: 60 minutes per day

Other given operational conditions affecting workers exposure

Setting	Indoor/outdoor use.
Ventilation rate	Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan.

Technical conditions and measures at process level (source) to prevent release

Technical protective measures Formulation activity is assumed to be a predominantly enclosed process.

Organisational measures to prevent/limit releases, dispersion and exposure

Organisational measures	Assumes a good basic standard of occupational hygiene is implemented. Ensure operatives are trained to minimise exposures. Ensure control measures are regularly inspected and maintained.
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Risk management measures

Wear suitable gloves (tested to EN374), coverall and eye protection.

2. Conditions of use affecting exposure (Non-industrial - Environment 1)

Amounts used

Annual amount for wide dispersive uses: 560 tonnes

Environmental factors not influenced by risk management measures

Dilution	Receiving surface water flow: 18000 m ³ /day
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Risk management measures

STP type	Municipal STP.
STP details	Assumed domestic sewage treatment plant flow: 2000 m ³ /day

2. Conditions of use affecting exposure (Non-industrial - Health 1)

Product characteristics

Physical state	Liquid , or: Solid , or: Gel
Concentration details	Concentration of substance in product: 15% Maximum concentration after dilution for use: 5 %

Amounts used

Consumer Use

Bathroom cleaning (spray)
 Amount per use: 35 g
 Bathroom cleaning (liquid)
 Amount per use: 44 g
 Toilet cleaners (acid)
 Amount per use: 55 g
 Toilet cleaners (bleach)
 Amount per use: 80 g
 Toilet rim cleaners (solid)
 Amount per use: 70 g
 Carpet cleaning (liquids)
 Amount per use: 500 mL
 Carpet powders
 Amount per use: 2200 g
 Carpet spray spot removers
 Amount per use: 4 g
 Floor cleaning (liquids)
 Amount per use: 250 g
 Oven cleaners
 Amount per use: 24 g
 Cleaning wipes.
 Amount per use: 3.4 g
 Spray cleaners
 Amount per use: 16.2 g
 Gel.
 Cleaning agent
 Amount per use: 63 g
 Liquid cleaners
 Amount per use: 63 g
 Hand dishwashing liquids
 Amount per use: 7 g
 Detergent powders
 Amount per use: 200 g

Other given operational conditions affecting Non-industrial exposure

Consumer information Avoid contact with skin.

No specific risk management measure identified beyond those operational conditions stated.

3. Exposure estimation (Environment 1)

Assessment method EUSES v2.1

4. Guidance to check compliance with the exposure scenario (Environment 1)

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination. Predicted exposures are not expected to exceed the applicable exposure limits (given in Section 8 of the SDS) when the operational conditions/risk management measures given in Section 2 are implemented.

3. Exposure estimation (Health 1)

No exposure assessment presented for human health.