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

1.1 Product identifier

Trade name : NEODOL 45 Product code : V2456

Registration number EU : 01-2119486413-36-0001

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

Use of the Sub: : Use in detergent manufacture.

stance/Mixture Please refer to section 16 and/or the annexes for the regis-

tered uses under REACH.

Uses advised against : This product must not be used in applications other than the

above without first seeking the advice of the supplier.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier : Shell Chemicals Europe B.V.

PO Box 2334 3000 CH Rotterdam

Netherlands

Telephone : +31 (0)10 441 5137 / +31 (0)10 441 5191 Telefax : +31 (0)20 716 8316/ +31 (0)20 713 9230

Contact for Safety Data : sccmsds@shell.com

Sheet

1.4 Emergency telephone number

+44 (0) 1235 239 670 (This telephone number is available 24 hours per day, 7 days per week)

Other information : NEODOL is a trademark owned by Shell Trademark Man-

agement B.V. and Shell Brands Inc. and used by affiliates of

Royal Dutch Shell plc.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Short-term (acute) aquatic hazard, Cate-

H400: Very toxic to aquatic life.

gory 1

Long-term (chronic) aquatic hazard, Cat-

egory 1

H410: Very toxic to aquatic life with long lasting

effects.

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2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms

**

Signal word : Warning

Hazard statements : PHYSICAL HAZARDS:

Not classified as a physical hazard according to CLP

criteria.

HEALTH HAZARDS:

Not classified as a health hazard under CLP criteria.

ENVIRONMENTAL HAZARDS:

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Supplemental Hazard

Statements

EUH066

Repeated exposure may cause skin dryness or

cracking.

Precautionary statements : Prevention:

P273 Avoid release to the environment.

Response:

P391 Collect spillage.

Storage:

No precautionary phrases.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

2.3 Other hazards

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Components

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	EC-No.	
Alcohols, C14-15-branched	Not Assigned	<= 100
and linear	931-287-9	

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Not expected to be a health hazard when used under normal

conditions.

Protection of first-aiders : When administering first aid, ensure that you are wearing the

appropriate personal protective equipment according to the

incident, injury and surroundings.

If inhaled : No treatment necessary under normal conditions of use. If

symptoms persist, obtain medical advice.

In case of skin contact : Remove contaminated clothing. Flush exposed area with wa-

ter and follow by washing with soap if available.

If persistent irritation occurs, obtain medical attention.

In case of eye contact : Flush eye with copious quantities of water.

Remove contact lenses, if present and easy to do. Continue

rinsing.

If persistent irritation occurs, obtain medical attention.

If swallowed : In general no treatment is necessary unless large quantities

are swallowed, however, get medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Not considered to be an inhalation hazard under normal con-

ditions of use.

Possible respiratory irritation signs and symptoms may include a temporary burning sensation of the nose and throat, cough-

ing, and/or difficulty breathing.

Defatting dermatitis signs and symptoms may include a burn-

ing sensation and/or a dried/cracked appearance.

No specific hazards under normal use conditions.

Eye irritation signs and symptoms may include a burning sen-

sation, redness, swelling, and/or blurred vision.

No specific hazards under normal use conditions.

Ingestion may result in nausea, vomiting and/or diarrhoea.

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4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Call a doctor or poison control center for guidance.

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam, water spray or fog. Dry chemical pow-

der, carbon dioxide, sand or earth may be used for small fires

only.

Unsuitable extinguishing

media

Do not use water in a jet.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-

fighting

Carbon monoxide may be evolved if incomplete combustion

occurs.

Will float and can be reignited on surface water.

The vapour is heavier than air, spreads along the ground and

distant ignition is possible.

5.3 Advice for firefighters

Special protective equipment :

for firefighters

Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to

relevant Standards (e.g. Europe: EN469).

Specific extinguishing meth-

ods

Standard procedure for chemical fires.

Further information : Clear fire area of all non-emergency personnel.

Keep adjacent containers cool by spraying with water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Observe all relevant local and international regulations.

Notify authorities if any exposure to the general public or the

environment occurs or is likely to occur.

Local authorities should be advised if significant spillages

cannot be contained.

6.1.1 For non emergency personnel:

Avoid contact with spilled or released material. Immediately remove all contaminated clothing. For guidance on selection of personal protective equipment see Section 8 of this Safety Data Sheet. For guidance on disposal of spilled material see

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Section 13 of this Safety Data Sheet. Stay upwind and keep out of low areas. Be ready for fire or possible exposure. 6.1.2 For emergency responders:

Avoid contact with spilled or released material. Immediately remove all contaminated clothing. For guidance on selection of personal protective equipment see Section 8 of this Safety Data Sheet. For guidance on disposal of spilled material see

Section 13 of this Safety Data Sheet. Stay upwind and keep out of low areas. Be ready for fire or possible exposure.

6.2 Environmental precautions

Environmental precautions : Prevent from spreading or entering into drains, ditches or riv-

ers by using sand, earth, or other appropriate barriers. Use appropriate containment to avoid environmental contami-

nation

Ventilate contaminated area thoroughly.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : For large liquid spills (> 1 drum), transfer by mechanical

means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely For small liquid spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove

contaminated soil and dispose of safely.

6.4 Reference to other sections

For guidance on selection of personal protective equipment see Section 8 of this Safety Data Sheet., For guidance on disposal of spilled material see Section 13 of this Safety Data Sheet.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures

Avoid breathing of or direct contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Section 8 of this Safety Data Sheet.

Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

Ensure that all local regulations regarding handling and stor-

age facilities are followed.

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Advice on safe handling : Avoid contact with skin, eyes and clothing.

Do not empty into drains.

Sudden Release of Pressure Hazard

Product Transfer : Keep containers closed when not in use. Do not use com-

pressed air for filling discharge or handling.

Hygiene measures : Wash hands before eating, drinking, smoking and using the

toilet. Launder contaminated clothing before re-use.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Refer to section 15 for any additional specific legislation cov-

ering the packaging and storage of this product.

Further information on stor-

age stability

Bulk storage tanks should be diked (bunded).

Vapours from tanks should not be released to atmosphere. Breathing losses during storage should be controlled by a

suitable vapour treatment system.

Nitrogen blanket recommended for large tanks (capacity 100

m3 or higher).

Insulation (lagging) will minimize heat loss in areas of low

ambient temperature.

Tanks should be fitted with heating coils in areas where ambient conditions can result in handling temperatures below the

freezing point/pour point of the product.

Packaging material : Suitable material: Stainless steel., Epoxy resins, Polyester.

Unsuitable material: Aluminum, Copper., Copper alloys.

Container Advice : Containers, even those that have been emptied, can contain

explosive vapours. Do not cut, drill, grind, weld or perform

similar operations on or near containers.

7.3 Specific end use(s)

Specific use(s) : Please refer to section 16 and/or the annexes for the regis-

tered uses under REACH.

Ensure that all local regulations regarding handling and stor-

age facilities are followed.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Biological occupational exposure limits

No biological limit allocated.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Remarks: No DNEL value has been established.

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

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Substance name	Environmental Compartment	Value
Remarks:	Exposure assessments have not been presented for the environment	
	therefore PNEC values not required.	

8.2 Exposure controls

Engineering measures

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:

Adequate ventilation to control airborne concentrations.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

Eye washes and showers for emergency use.

General Information:

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Personal protective equipment

Read in conjunction with the Exposure Scenario for your specific use contained in the Annex. The provided information is made in consideration of the PPE directive (Council Directive 89/686/EEC) and the CEN European Committee for Standardisation (CEN) standards.

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Eye protection : If material is handled such that it could be splashed into eyes,

protective eyewear is recommended. Approved to EU Standard EN166.

Hand protection

Remarks : Where hand contact with the product may occur the use of

gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. Longer term protection: Nitrile rubber gloves. Incidental contact/Splash protection: PVC or neoprene rubber gloves. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same but recognize that suitable gloves offering this level of protection may not be available and in this

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case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

Skin and body protection : Skin protection is not ordinarily required beyond standard

work clothes.

It is good practice to wear chemical resistant gloves. Protective clothing approved to EU Standard EN14605.

Respiratory protection : If engineering controls do not maintain airborne concentra-

tions to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are unsuitable (e.g. airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing appa-

ratus.

Where air-filtering respirators are suitable, select an appro-

priate combination of mask and filter.

If air-filtering respirators are suitable for conditions of use: Select a filter suitable for the combination of organic gases and vapours and particles meeting EN14387 and EN143 [Filter type A/P for use against certain organic gases and vapours with a boiling point >65°C (149°F) and for use

against particles].

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : Waxy solid at 20 °C.

Colour : white

Odour : mild

Odour Threshold : Data not available

Melting / freezing point : 29 - 36 °C

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Boiling point/boiling range : 289 °C (1013.0 hPa)

Flammability

Flammability (solid, gas) : Not classified as flammable but will burn.

Lower explosion limit and upper explosion limit / flammability limit

Upper explosion limit / upper flammability limit

Data not available

Lower explosion limit / Lower flammability limit

Data not available

Flash point : 157 °C

Method: ASTM D93 (PMCC)

Auto-ignition temperature : Data not available

Decomposition temperature

Decomposition tempera-

ture

: Data not available

pH : Not applicable

Viscosity

Viscosity, dynamic : 14 mPa.s (40 °C)

Method: ASTM D445

50 mPa.s (35 °C) Method: ASTM D445

Viscosity, kinematic : 18 mm2/s (40 °C)

Method: ASTM D445

Solubility(ies)

Water solubility : ca. 0.2 mg/l negligible (25 °C)

Partition coefficient: n-

octanol/water

log Pow: 6 - 6.2

Vapour pressure : < 0.05 hPa (25 °C)

Relative density : 0.824 (38 °C)

Method: ASTM D4052

Density : 823 kg/m3 (40 °C)

Method: ASTM D4052

Relative vapour density : 7.5

Particle characteristics

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Particle size : Data not available

9.2 Other information

Explosives : Not applicable

Oxidizing properties : Data not available

Evaporation rate : Data not available

Conductivity: > 10,000 pS/m

A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid, This material is not expected to be

a static accumulator.

Surface tension : Data not available

Molecular weight : 218 - 224 g/mol

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable at normal ambient temperature and pressure.

May oxidise in the presence of air.

10.2 Chemical stability

The product is chemically stable.

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : None known.

10.4 Conditions to avoid

Conditions to avoid : Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Materials to avoid : Copper.

Copper alloys.

Strong oxidising agents.

Aluminum

10.6 Hazardous decomposition products

None expected under normal use conditions.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

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Information on likely routes of:

exposure

Exposure may occur via inhalation, ingestion, skin absorption,

skin or eye contact, and accidental ingestion.

Acute toxicity

Components:

Alcohols, C14-15-branched and linear:

Acute oral toxicity : Remarks: LD50 >5000 mg/kg

Low toxicity

Acute inhalation toxicity : Remarks: Low toxicity if inhaled.

Based on available data, the classification criteria are not met.

Acute dermal toxicity : Remarks: LD50 > 5000 mg/kg

Low toxicity

Skin corrosion/irritation

Components:

Alcohols, C14-15-branched and linear:

Remarks : Not irritating to skin.

Serious eye damage/eye irritation

Components:

Alcohols, C14-15-branched and linear:

Remarks : Not irritating to eye.

Respiratory or skin sensitisation

Components:

Alcohols, C14-15-branched and linear:

Remarks : Not a sensitiser.

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Components:

Alcohols, C14-15-branched and linear:

Genotoxicity in vivo : Remarks: Non mutagenic

Germ cell mutagenicity- As-

sessment

This product does not meet the criteria for classification in

categories 1A/1B.

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Carcinogenicity

Components:

Alcohols, C14-15-branched and linear:

Remarks : Not a carcinogen.

Based on available data, the classification criteria are not met.

Carcinogenicity - Assess-

ment

This product does not meet the criteria for classification in

categories 1A/1B.

Material	GHS/CLP Carcinogenicity Classification
Alcohols, C14-15-branched and linear	No carcinogenicity classification.

Reproductive toxicity

Components:

Alcohols, C14-15-branched and linear:

Effects on fertility :

Remarks: Data not available

Reproductive toxicity - As-

sessment

This product does not meet the criteria for classification in

categories 1A/1B.

STOT - single exposure

Components:

Alcohols, C14-15-branched and linear:

Remarks : Based on available data, the classification criteria are not met.

STOT - repeated exposure

Components:

Alcohols, C14-15-branched and linear:

Remarks : Based on available data, the classification criteria are not met.

Aspiration toxicity

Components:

Alcohols, C14-15-branched and linear:

Not an aspiration hazard., Based on available data, the classification criteria are not met.

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11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment The substance/mixture does not contain components consid-

> ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

Further information

Product:

Remarks Unless indicated otherwise, the data presented is representa-

tive of the product as a whole, rather than for individual com-

ponent(s).

Components:

Alcohols, C14-15-branched and linear:

Remarks Classifications by other authorities under varying regulatory

frameworks may exist.

SECTION 12: Ecological information

12.1 Toxicity

Components:

Alcohols, C14-15-branched and linear:

Toxicity to fish Remarks: No toxicity at the limit of solubility

aquatic invertebrates

Toxicity to daphnia and other : Remarks: No toxicity at the limit of solubility

Toxicity to algae/aquatic plants : Remarks: LC/EC/IC50 < 1 mg/l

Toxicity to microorganisms

Remarks: Data not available

Toxicity to fish (Chronic tox-

icity)

Remarks: Data not available

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

Remarks: Data not available

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12.2 Persistence and degradability

Components:

Alcohols, C14-15-branched and linear:

Biodegradability : Remarks: Readily biodegradable.

12.3 Bioaccumulative potential

Components:

Alcohols, C14-15-branched and linear:

Bioaccumulation : Remarks: Has the potential to bioaccumulate.

Log Kow > =4

12.4 Mobility in soil

Components:

Alcohols, C14-15-branched and linear:

Mobility : Remarks: Floats on water., Adsorbs to soil and has low mobili-

ty

12.5 Results of PBT and vPvB assessment

Components:

Alcohols, C14-15-branched and linear:

Assessment : The substance does not fulfill all screening criteria for persis-

tence, bioaccumulation and toxicity and hence is not consid-

ered to be PBT or vPvB..

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to

have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological infor-

mation

Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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Product : Recover or recycle if possible.

It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal meth-

ods in compliance with applicable regulations.

Do not dispose into the environment, in drains or in water

courses.

Waste product should not be allowed to contaminate soil or

water.

Disposal should be in accordance with applicable regional,

national, and local laws and regulations.

Local regulations may be more stringent than regional or na-

tional requirements and must be complied with.

Contaminated packaging : Drain container thoroughly.

After draining, vent in a safe place away from sparks and fire.

Residues may cause an explosion hazard. Do not puncture, cut, or weld uncleaned drums. Send to drum recoverer or metal reclaimer.

SECTION 14: Transport information

14.1 UN number or ID number

ADR : 3082
RID : 3082
IMDG : 3082
IATA : 3082

14.2 UN proper shipping name

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(C12-C15 ALCOHOL)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(C12-C15 ALCOHOL)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(C12-C15 ALCOHOL)

IATA : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(C12-C15 ALCOHOL)

14.3 Transport hazard class(es)

ADR : 9

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 RID
 : 9

 IMDG
 : 9

 IATA
 : 9

14.4 Packing group

ADR

Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9

RID

Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9

IMDG

Packing group : III Labels : 9

IATA

Packing group : III Labels : 9

14.5 Environmental hazards

ADR

Environmentally hazardous : yes

rid

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

14.6 Special precautions for user

Remarks : Special Precautions: Refer to Section 7, Handling & Storage,

for special precautions which a user needs to be aware of or

needs to comply with in connection with transport.

14.7 Maritime transport in bulk according to IMO instruments

Pollution category : Y Ship type : 2

Product name : Alcohols (C13+)

Additional Information: This product may be transported under nitrogen blanketing.

Nitrogen is an odourless and invisible gas. Exposure to nitrogen enriched atmospheres displaces available oxygen which may cause asphyxiation or death. Personnel must observe strict safety precautions when involved with a confined space

entry.

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Transport in bulk according to Annex II of Marpol and the IBC Code

SECTION 15: Regulatory information

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

REACH - List of substances subject to authorisation : Product is not subject to Authorisation under REACH.

dillex AIV) tion under NEACH.

REACH - Candidate List of Substances of Very High : This product does not contain sub-

Concern for Authorisation (Article 59). stances of very high concern (Regulation (EC) No 1907/2006 (REACH),

Article 57).

Other regulations:

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Environmental Protection Act 1990 (as amended). Health and Safety at Work etc. Act 1974. Consumers Protection Act 1987. Pollution Prevention and Control Act 1999. Environment Act 1995. Factories Act 1961. The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment (Amendment) Regulations 2011. Chemicals (Hazard Information and Packaging for Supply) Regulations 2009. Control of Substances Hazardous to Health Regulations 2002 (as amended). Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997. Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (as amended). Personal Protective Equipment Regulations 2002. Personal Protective Equipment at Work Regulations 1992. Hazardous Waste (England and Wales) Regulations 2005(as amended). Control of Major Accident Hazards Regulations 1999 (as amended). Renewable Transport Fuel Obligations Order 2007 (as amended). Energy Act 2011. Environmental Permitting (England and Wales) Regulations 2010 (as amended). Waste (England and Wales) Regulations 2011 (as amended). Planning (Hazardous Substances) Act 1990 and associated regulations. The Environmental Protection (Controls on Ozone-Depleting Substances) Regulations 2011.

Product is subject to the Control of Major Accident Hazards Regulations 2015 (2015 No. 483) based on Seveso III directive (2012/18/EU).

The components of this product are reported in the following inventories:

DSL : Listed

IECSC : Listed

KECI : Listed

NZIoC : Listed

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PICCS : Listed

TSCA : Listed

TCSI : Listed

AIIC : Listed

ENCS : Listed

15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA -European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI -Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

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Further information

Training advice : Provide adequate information, instruction and training for op-

erators.

Other information : For Industry guidance and tools on REACH please visit the

CEFIC website at http://cefic.org/Industry-support.

The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not consid-

ered to be PBT or vPvB.

A vertical bar (|) in the left margin indicates an amendment

from the previous version.

Sources of key data used to compile the Safety Data

Sheet

The quoted data are from, but not limited to, one or more sources of information (e.g. toxicological data from Shell Health Services, material suppliers' data, CONCAWE, EU

IUCLID date base, EC 1272 regulation, etc).

Identified Uses according to the Use Descriptor System

Uses - Worker

Title : Manufacture of substance- Industrial

Uses - Worker

Title : Use as an intermediate- Industrial

Uses - Worker

Title : Formulation & (re)packing of substances and mixtures- Indus-

trial

Uses - Worker

Title : Uses in Coatings- Industrial

Uses - Worker

Title : Uses in Coatings- Professional

Uses - Worker

Title : Use in Cleaning Agents- Industrial

Uses - Worker

Title : Use in Cleaning Agents- Professional

Uses - Worker

Title : Metal working fluids / rolling oils- Industrial

Uses - Worker

Title : Metal working fluids / rolling oils- Professional

Identified Uses according to the Use Descriptor System

Uses - Consumer

Title : Uses in Coatings

- Consumer

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Uses - Consumer

Title : Use in Cleaning Agents

- Consumer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GB / EN

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Exposure Scenario - Worker

30000000622 Manufacture of NEODOL45_V2456_LV - Industrial		
SECTION 1	EXPOSURE SCENARIO TITLE	
Title	Manufacture of substance- Industrial	
Use Descriptor	Sector of Use: SU3, SU8, SU9 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 8a, PROC 8b, PROC 15 Environmental Release Categories: ERC1	
Scope of process	Manufacture of the substance or use as a process chemical or extraction agent. Includes recycling/ recovery, material transfers, storage, maintenance and loading (including marine vessel/barge, road/rail car and bulk container), sampling and associated laboratory activities.	

ethoxylate :

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Additional Information	No exposure assessment presented for human health.

ethoxylate :

Section 2.1	Control of Worker Exposure
Product Characteristics	

ethoxylate :

Contributing Scenarios	Risk Management Measures
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Section 2.2	Control of Environmental Exposu	ire
Substance is complex UVO	CB.	
Alcohol.		
Readily biodegradable.		
Amounts Used		
Fraction of EU tonnage use	ed in region:	
Regional use tonnage (tonnes/year):		
Fraction of Regional tonnage used locally:		
Annual site tonnage (tonnes/year):		13.900
Maximum daily site tonnage (kg/day): 4.63E+04		4.63E+04
Frequency and Duration	of Use	
Continuous release.		
Emission Days (days/year): 300		300
Environmental factors not influenced by risk management		•
Local freshwater dilution factor: 10		10

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Local marine water dilution factor:	100
Other Operational Conditions affecting Environmental Exposure	
Release fraction to air from process (initial release prior to RMM):	
Release fraction to wastewater from process (initial release prior to RMM):	
Release fraction to soil from process (initial release prior to RMM):	
Technical conditions and measures at process level (source) to pro	event release
Common practices vary across sites thus conservative process re-	
lease estimates used.	
Technical onsite conditions and measures to reduce or limit discha	arges, air emis-
sions and releases to soil	
Risk from environmental exposure is driven by soil.	
Prevent discharge of undissolved substance to or recover from onsite wastewater.	
If discharging to domestic sewage treatment plant, no secondary	
wastewater treatment required.	
Treat air emission to provide a typical removal efficiency of (%)	0
Treat onsite wastewater (prior to receiving water discharge) to provide	99
the required removal efficiency of >= (%)	
If discharging to domestic sewage treatment plant, no secondary	0
wastewater treatment required.	
Organisational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.	
Conditions and Measures related to municipal sewage treatment p	lant
Estimated substance removal from wastewater via domestic sewage treatment (%)	99
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	99
Assumed domestic sewage treatment plant flow (m3/d)	10,000
Maximum allowable site tonnage (MSafe) based on release following	,
total wastewater treatment removal (kg/d)	
Conditions and Measures related to external treatment of waste for	disposal
During manufacturing no waste of the substance is generated.	•
Conditions and measures related to external recovery of waste	
During manufacturing no waste of the substance is generated.	
During mandiacturing no waste of the substance is generated.	

ethoxylate :

SECTION 3	EXPOSURE ESTIMATION	
ethoxylate	:	
Section 3.1 - Health		

ethoxylate :

No exposure assessment presented for human health.

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Section 3.2 - Environment

Used EUSES model.

ethoxylate :

SECTION 4 GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO

ethoxylate :

Section 4.1 - Health

No exposure assessment presented for human health.

ethoxylate :

Section 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.

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 on-site technologies, either alone or in combination.

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

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Exposure Scenario - Worker

30000000623 Use of NEODOL45_V2456_LV as an Intermediate - Industri-		
al		
SECTION 1	EXPOSURE SCENARIO TITLE	
Title	Use as an intermediate- Industrial	
Use Descriptor	Sector of Use: SU3, SU8, SU9 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 8a, PROC 8b, PROC 15 Environmental Release Categories: ERC6a	
Scope of process	Use of substance as an intermediate (not related to Strictly Controlled Conditions). Includes recycling/ recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).	

ethoxylate :

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Additional Information	No exposure assessment presented for human health.

ethoxylate :

Section 2.1	Control of Worker Exposure
Product Characteristics	

ethoxylate :

Contributing Scenarios	Risk Management Measures
------------------------	--------------------------

Section 2.2	Control of Environmental Exposure	
Substance is complex UVCB		
Alcohol.		
Readily biodegradable.		
Amounts Used		
Fraction of EU tonnage used	in region:	
Regional use tonnage (tonnes/year):		
Fraction of Regional tonnage used locally:		
Annual site tonnage (tonnes/year):		1.870
Maximum daily site tonnage (kg/day):		6.233
Frequency and Duration of	Use	
Continuous release.		
Emission Days (days/year):		300
Environmental factors not influenced by risk management		

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Local freshwater dilution factor: Local marine water dilution factor: Other Operational Conditions affecting Environmental Exposure Release fraction to air from process (initial release prior to RMM): Release fraction to wastewater from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Technical conditions and measures at process level (source) to pre	10 100 3.80E-05 0.007
Other Operational Conditions affecting Environmental Exposure Release fraction to air from process (initial release prior to RMM): Release fraction to wastewater from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM):	3.80E-05 0.007
Release fraction to air from process (initial release prior to RMM): Release fraction to wastewater from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM):	0.007
Release fraction to wastewater from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM):	0.007
RMM): Release fraction to soil from process (initial release prior to RMM):	
	vent release
Technical conditions and measures at process level (source) to pre	vent release
Common practices vary across sites thus conservative process release estimates used.	
Technical onsite conditions and measures to reduce or limit discha sions and releases to soil	rges, air emis-
Risk from environmental exposure is driven by marine water.	
Prevent discharge of undissolved substance to or recover from onsite wastewater.	
If discharging to domestic sewage treatment plant, no secondary wastewater treatment required.	
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 of >= (%)	99
If discharging to domestic sewage treatment plant, no secondary wastewater treatment required.	0
Organisational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.	
Conditions and Measures related to municipal sewage treatment pla	ant
Estimated substance removal from wastewater via domestic sewage treatment (%)	99
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	99
Assumed domestic sewage treatment plant flow (m3/d)	10,000
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)	
Conditions and Measures related to external treatment of waste for	disposal
External treatment and disposal of waste should comply with applicable I regulations.	local and/or regional
This substance is consumed during use and no waste of substance is ge	enerated.
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable le	ocal and/or regional
This substance is consumed during use and no waste of substance is generated.	

SECTION 3	EXPOSURE ESTIMATION	
ethoxylate	:	

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Section 3.1 - Health

No exposure assessment presented for human health.

ethoxylate :

Section 3.2 - Environment

Used EUSES model.

ethoxylate :

SECTION 4 GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO

ethoxylate :

Section 4.1 - Health

No exposure assessment presented for human health.

ethoxylate :

Section 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

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 on-site technologies, either alone or in combination.

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

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Exposure Scenario - Worker

300000000624 Formula al	tion/Repacking of NEODOL45_V2456_LV - Industri-
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Formulation & (re)packing of substances and mixtures- Industrial
Use Descriptor	Sector of Use: SU3, SU10 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 5, PROC 8a, PROC 8b, PROC 9, PROC 14, PROC 15 Environmental Release Categories: ERC2
Scope of process	Formulation, packing and re-packing of the substance and its mixtures in batch or continuous operations, including storage, materials transfers, mixing, tabletting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities.

ethoxylate :

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Additional Information	No exposure assessment presented for human health.

ethoxylate :

Section 2.1	Control of Worker Exposure
Product Characteristics	

ethoxylate :

Contributing Scenarios	Risk Management Measures
------------------------	--------------------------

Section 2.2 Control of Environmental Exposure		
Substance is complex UVCB		
Alcohol.		
Readily biodegradable.		
Amounts Used		
Fraction of EU tonnage used in region:		
Regional use tonnage (tonnes/year):		
Fraction of Regional tonnage used locally:		
Annual site tonnage (tonnes/year):		200
Maximum daily site tonnage (kg/day):		666.7
Frequency and Duration of	Use	
Continuous release.	·	
Emission Days (days/year):		300

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Environmental factors not influenced by risk management			
Local freshwater dilution factor: 10			
Local marine water dilution factor:	100		
	100		
Other Operational Conditions affecting Environmental Exposure			
Release fraction to air from process (initial release prior to RMM):	3.60E-04		
Release fraction to wastewater from process (initial release prior to RMM):	2.00E-05		
Release fraction to soil from process (initial release prior to RMM):			
Technical conditions and measures at process level (source) to process	revent release		
Common practices vary across sites thus conservative process re-			
lease estimates used.			
Technical onsite conditions and measures to reduce or limit dischains and releases to soil	narges, air emis-		
Risk from environmental exposure is driven by marine water.			
Prevent discharge of undissolved substance to or recover from onsite			
wastewater.			
If discharging to domestic sewage treatment plant, no secondary			
wastewater treatment required.			
Treat air emission to provide a typical removal efficiency of (%)	0		
Treat onsite wastewater (prior to receiving water discharge) to provide	99		
the required removal efficiency of >= (%)			
If discharging to domestic sewage treatment plant, no secondary	0		
wastewater treatment required.			
Organisational measures to prevent/limit release from site			
Sludge should be incinerated, contained or reclaimed.			
Conditions and Measures related to municipal sewage treatment p	olant		
Estimated substance removal from wastewater via domestic sewage	99		
treatment (%)			
Total efficiency of removal from wastewater after onsite and offsite	99		
(domestic treatment plant) RMMs (%)			
Assumed domestic sewage treatment plant flow (m3/d)	10,000		
Maximum allowable site tonnage (MSafe) based on release following	- ,		
total wastewater treatment removal (kg/d)			
Conditions and Measures related to external treatment of waste for	or disposal		
External treatment and disposal of waste should comply with applicable			
regulations.			
Conditions and measures related to external recovery of waste			
External recovery and recycling of waste should comply with applicable	e local and/or regional		
regulations.			
regulations.			

ethoxylate :

SECTION 3 EXPOSURE ESTIMATION

ethoxylate :

Section 3.1 - Health

No exposure assessment presented for human health.

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kylate	:	
ion 3.2 -Environmen	t	
I EUSES model.		
kylate	:	
TION 4		HECK COMPLIANCE WITH THE NARIO
kylate	:	
ion 4.1 - Health		
xposure assessment _l	presented for human h	ealth.
kylate	:	
thus, scaling may be		
		e achieved using onsite/offsite technolo-
combination.	•	
ling reveals a condition	on of unsafe use (i.e., F sessment is required.	RCRs > 1), additional RMMs or a site-
	xylate ion 3.2 -Environmen I EUSES model. xylate ion 4.1 - Health xposure assessment pance is based on assist thus, scaling may be sures. iired removal efficience either alone or in combined combination.	21.11.2023 800001001064 xylate : ion 3.2 - Environment EUSES model. xylate : ion 4.1 - Health xposure assessment presented for human h xylate : ion 4.2 - Environment ance is based on assumed operating conditing thus, scaling may be necessary to define all sures. iired removal efficiency for wastewater can be either alone or in combination. uired removal efficiency for air can be achieve combination.

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Exposure Scenario - Worker

Exposure oceriano - Worke	•
30000000625 Use of NEODOL45_V2456_LV in Coatings - Industrial	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Uses in Coatings- Industrial
Use Descriptor	Sector of Use: SU3 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 5, PROC 7, PROC 8a, PROC 8b, PROC 10, PROC 13, PROC 15 Environmental Release Categories: ERC4
Scope of process	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.

ethoxylate :

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Additional Information	No exposure assessment presented for human health.

ethoxylate :

Section 2.1	Control of Worker Exposure
Product Characteristics	

ethoxylate :

Contributing Scenarios	Risk Management Measures
------------------------	--------------------------

Section 2.2	Section 2.2 Control of Environmental Exposure	
Substance is complex UVCB		
Alcohol.		
Readily biodegradable.		
Amounts Used		
Fraction of EU tonnage used in region:		7.500
Regional use tonnage (tonnes/year):		
Fraction of Regional tonnage	used locally:	
Annual site tonnage (tonnes/year):		0.029
Maximum daily site tonnage (kg/day):		0.1
Frequency and Duration of	Use	
Continuous release.		
Emission Days (days/year): 300		300

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Local freshwater dilution factor:	10
Local marine water dilution factor:	100
Other Operational Conditions affecting Environmental Exposure	100
Release fraction to air from process (initial release prior to RMM):	0.03
Release fraction to wastewater from process (initial release prior to	0.03
RMM):	0.03
Release fraction to soil from process (initial release prior to RMM):	
Technical conditions and measures at process level (source) to pr	event release
Common practices vary across sites thus conservative process re- lease estimates used.	
Technical onsite conditions and measures to reduce or limit disch sions and releases to soil	arges, air emis-
Risk from environmental exposure is driven by marine water.	
If discharging to domestic sewage treatment plant, no secondary wastewater treatment required.	
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 of >= (%)	99
If discharging to domestic sewage treatment plant, no secondary wastewater treatment required.	0
Organisational measures to prevent/limit release from site	
Sludge should be incinerated, contained or reclaimed.	
Conditions and Measures related to municipal sewage treatment p	lant
Estimated substance removal from wastewater via domestic sewage treatment (%)	99
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	99
Assumed domestic sewage treatment plant flow (m3/d)	2,000
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)	
Conditions and Measures related to external treatment of waste fo	r disposal
External treatment and disposal of waste should comply with applicable regulations.	-
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable regulations.	local and/or regiona

ethoxylate :

ethoxylate :

Section 3.1 - Health

No exposure assessment presented for human health.

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ethoxylate :

Section 3.2 - Environment

Used EUSES model.

ethoxylate :

SECTION 4 GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO

ethoxylate :

Section 4.1 - Health

No exposure assessment presented for human health.

ethoxylate :

Section 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.

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 on-site technologies, either alone or in combination.

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

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Exposure Scenario - Worker

Exposure oceriano - Worke	·
30000000626 Use of NEODOL45_V2456_LV in Coatings - Professional	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Uses in Coatings- Professional
Use Descriptor	Sector of Use: SU22 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 5, PROC 8a, PROC 8b, PROC 10, PROC 11, PROC 13, PROC 15, PROC 19 Environmental Release Categories: ERC8a, ERC8d
Scope of process	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.

ethoxylate :

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Additional Information	No exposure assessment presented for human health.

ethoxylate :

Section 2.1	Control of Worker Exposure
Product Characteristics	

ethoxylate :

Contributing Scenarios Risk Management Measures

Section 2.2	Control of Environmental Exposure	e
Substance is complex UVCB.		
Alcohol.		
Readily biodegradable.		
Amounts Used		
Fraction of EU tonnage used in region:		
Regional use tonnage (tonnes/year):		
Fraction of Regional tonnage used locally:		
Annual site tonnage (tonnes/year):		0.87
Maximum daily site tonnage (kg/day):		2.9
Frequency and Duration of Use		
Continuous release.		
Emission Days (days/year): 300		300

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Environmental factors not influenced by risk management	140	
Local freshwater dilution factor:	10	
Local marine water dilution factor:	100	
Other Operational Conditions affecting Environmental Exposure	1	
Release fraction to air from process (initial release prior to RMM):	0.01	
Release fraction to wastewater from process (initial release prior to RMM):	0.01	
Release fraction to soil from process (initial release prior to RMM):		
Technical conditions and measures at process level (source) to prevent release		
Common practices vary across sites thus conservative process re- lease estimates used.		
Technical onsite conditions and measures to reduce or limit disch sions and releases to soil	arges, air emis-	
Risk from environmental exposure is driven by marine water.		
If discharging to domestic sewage treatment plant, no secondary wastewater treatment required.		
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 of >= (%)	99	
If discharging to domestic sewage treatment plant, no secondary wastewater treatment required.	0	
Organisational measures to prevent/limit release from site	· ·	
Sludge should be incinerated, contained or reclaimed.		
Conditions and Measures related to municipal sewage treatment p	lant	
Estimated substance removal from wastewater via domestic sewage treatment (%)	99	
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	99	
Assumed domestic sewage treatment plant flow (m3/d)	2,000	
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)		
Conditions and Measures related to external treatment of waste fo	r disposal	
External treatment and disposal of waste should comply with applicable regulations.		
Conditions and measures related to external recovery of waste		
External recovery and recycling of waste should comply with applicable local and/or regional regulations.		

ethoxylate :

SECTION 3 EXPOSURE ESTIMATION	SECTION 3	EXPOSURE ESTIMATION	
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ethoxylate :

Section 3.1 - Health

No exposure assessment presented for human health.

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ethoxylate :

Section 3.2 -Environment

Used EUSES model.

ethoxylate :

SECTION 4 GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO

ethoxylate :

Section 4.1 - Health

No exposure assessment presented for human health.

ethoxylate

Section 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.

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 on-site technologies, either alone or in combination.

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

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Exposure Scenario - Worker

30000000628 Use of NEODOL45_V2456_LV in Cleaning Agents-Industrial		
SECTION 1	EXPOSURE SCENARIO TITLE	
Title	Use in Cleaning Agents- Industrial	
Use Descriptor	Sector of Use: SU3 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4 PROC 7, PROC 8a, PROC 8b, PROC 10, PROC 13 Environmental Release Categories: ERC4	
Scope of process	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.	

ethoxylate :

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Additional Information	No exposure assessment presented for human health.

ethoxylate :

Section 2.1	Control of Worker Exposure
Product Characteristics	

ethoxylate :

١	Contributing Scenarios	Disk Management Massures
-	Contributing Scenarios	Risk Management Measures

Section 2.2	Control of Environmental Exposure	
Substance is complex UVCB.		
Alcohol.		
Readily biodegradable.		
Amounts Used		
Fraction of EU tonnage used in region:		
Regional use tonnage (tonnes/year):		
Fraction of Regional tonnage used locally:		
Annual site tonnage (tonnes/	year):	0.96
Maximum daily site tonnage		4.36
Frequency and Duration of Use		
Continuous release.		
Emission Days (days/year): 220		220
Environmental factors not influenced by risk management		

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Local freshwater dilution factor: 10 Local marine water dilution factor: 100 Other Operational Conditions affecting Environmental Exposure Release fraction to air from process (initial release prior to RMM): 0 Release fraction to wastewater from process (initial release prior to 1 RMM): Release fraction to soil from process (initial release prior to RMM): Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by marine water. If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) 0 Treat onsite wastewater (prior to receiving water discharge) to provide 99 the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary 0 wastewater treatment required. Organisational measures to prevent/limit release from site Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite 99 (domestic treatment plant) RMMs (%) Assumed domestic sewage treatment plant flow (m3/d) 2,000 Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d) Conditions and Measures related to external treatment of waste for disposal External treatment and disposal of waste should comply with applicable local and/or regional regulations. Conditions and measures related to external recovery of waste External recovery and recycling of waste should comply with applicable local and/or regional regulations.

ethoxylate :

SECTION 3	EXPOSURE ESTIMATION

ethoxylate :

Section 3.1 - Health

No exposure assessment presented for human health.

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Section 3.2 -Environment

Used EUSES model.

ethoxylate :

SECTION 4 GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO

ethoxylate :

Section 4.1 - Health

No exposure assessment presented for human health.

ethoxylate :

Section 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.

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 on-site technologies, either alone or in combination.

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

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Exposure Scenario - Worker

30000000629 Use of NEODOL45_V2456_LV in Cleaning Agents-Professional	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Use in Cleaning Agents- Professional
Use Descriptor	Sector of Use: SU22 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 8a, PROC 8b, PROC 10, PROC 11, PROC 13 Environmental Release Categories: ERC8a, ERC8d
Scope of process	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).

ethoxylate :

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Additional Information	No exposure assessment presented for human health.

ethoxylate :

Section 2.1	Control of Worker Exposure
Product Characteristics	

ethoxylate :

Contributing Scenarios	Risk Management Measures
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Section 2.2	Control of Environmental Exposure)
Substance is complex UVCB.		
Alcohol.		
Readily biodegradable.		
Amounts Used		
Fraction of EU tonnage used	in region:	
Regional use tonnage (tonne	s/year):	
Fraction of Regional tonnage	used locally:	
Annual site tonnage (tonnes/	/ear):	0.52
Maximum daily site tonnage (kg/day): 1.42		1.42
Frequency and Duration of	Use	
Continuous release.		
Emission Days (days/year): 365		365
Environmental factors not i	nfluenced by risk management	

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Local freshwater dilution factor:	10
Local marine water dilution factor:	100
Other Operational Conditions affecting Environmental Exposure	
Release fraction to air from process (initial release prior to RMM):	0
Release fraction to wastewater from process (initial release prior to RMM):	1
Release fraction to soil from process (initial release prior to RMM):	
Technical conditions and measures at process level (source) to pr	event release
Common practices vary across sites thus conservative process re-	
lease estimates used.	
Technical onsite conditions and measures to reduce or limit disch	arges, air emis-
sions and releases to soil	J
Risk from environmental exposure is driven by freshwater.	
If discharging to domestic sewage treatment plant, no secondary	
wastewater treatment required.	
Treat air emission to provide a typical removal efficiency of (%)	0
Treat onsite wastewater (prior to receiving water discharge) to provide	99
the required removal efficiency of >= (%)	
If discharging to domestic sewage treatment plant, no secondary	0
wastewater treatment required.	
Organisational measures to prevent/limit release from site	
Sludge should be incinerated, contained or reclaimed.	
Conditions and Measures related to municipal sewage treatment p	lant
Estimated substance removal from wastewater via domestic sewage	99
treatment (%)	
Total efficiency of removal from wastewater after onsite and offsite	99
(domestic treatment plant) RMMs (%)	
Assumed domestic sewage treatment plant flow (m3/d)	2,000
Maximum allowable site tonnage (MSafe) based on release following	
total wastewater treatment removal (kg/d)	
Conditions and Measures related to external treatment of waste fo	r disposal
External treatment and disposal of waste should comply with applicable	local and/or regional
regulations.	
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable	local and/or regional
regulations.	

ethoxylate :

SECTION 3	EXPOSURE ESTIMATION
-	-

ethoxylate :

Section 3.1 - Health

No exposure assessment presented for human health.

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Section 3.2 -Environment

Used EUSES model.

ethoxylate :

SECTION 4 GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO

ethoxylate :

Section 4.1 - Health

No exposure assessment presented for human health.

ethoxylate :

Section 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.

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 on-site technologies, either alone or in combination.

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

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Exposure Scenario - Worker

30000000632 Use of NEODOL45_V2456_LV in Metal Work Fluids/RollOils-Industrial	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Metal working fluids / rolling oils- Industrial
Use Descriptor	Sector of Use: SU3 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 5, PROC 7, PROC 8a, PROC 8b, PROC 9, PROC 10, PROC 13, PROC 17 Environmental Release Categories: ERC4
Scope of process	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.

ethoxylate :

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Additional Information	No exposure assessment presented for human health.

ethoxylate :

Section 2.1	Control of Worker Exposure
Product Characteristics	

ethoxylate :

Contributing Scenarios	Risk Management Measures
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Section 2.2	Control of Environmental Exposure	
Substance is complex UVCB.	Substance is complex UVCB.	
Alcohol.		
Readily biodegradable.		
Amounts Used		
Fraction of EU tonnage used in region:		
Regional use tonnage (tonnes/year):		
Fraction of Regional tonnage used locally:		
Annual site tonnage (tonnes/year): 7.5		7.5
Maximum daily site tonnage (kg/day): 25		25
Frequency and Duration of Use		
Continuous release.		

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Emission Days (days/year):	300
Environmental factors not influenced by risk management	
Local freshwater dilution factor:	10
Local marine water dilution factor:	100
Other Operational Conditions affecting Environmental Exposure	
Release fraction to air from process (initial release prior to RMM):	9.60E-03
Release fraction to wastewater from process (initial release prior to RMM):	2.08E-07
Release fraction to soil from process (initial release prior to RMM):	
Technical conditions and measures at process level (source) to pr	event release
Common practices vary across sites thus conservative process re-	
lease estimates used.	
Technical onsite conditions and measures to reduce or limit disch	arges, air emis-
sions and releases to soil	
Risk from environmental exposure is driven by marine water.	
If discharging to domestic sewage treatment plant, no secondary wastewater treatment required.	
Treat air emission to provide a typical removal efficiency of (%)	0
Treat onsite wastewater (prior to receiving water discharge) to provide	99
the required removal efficiency of >= (%)	0
If discharging to domestic sewage treatment plant, no secondary wastewater treatment required.	U
Organisational measures to prevent/limit release from site	
Sludge should be incinerated, contained or reclaimed.	
Siduge should be incinerated, contained or reclaimed.	
Conditions and Measures related to municipal sewage treatment p	lant
Estimated substance removal from wastewater via domestic sewage	99
treatment (%)	99
Total efficiency of removal from wastewater after onsite and offsite	99
(domestic treatment plant) RMMs (%)	
Assumed domestic sewage treatment plant flow (m3/d)	2,000
Maximum allowable site tonnage (MSafe) based on release following	
total wastewater treatment removal (kg/d)	
Conditions and Measures related to external treatment of waste fo	
External treatment and disposal of waste should comply with applicable regulations.	e local and/or regiona
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable regulations.	local and/or regional

ethoxylate :

SECTION 3 EXPOSURE ESTIN	MATION
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Section 3.1 - Health
No exposure assessment presented for human health.

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ethoxylate :

Section 3.2 - Environment

Used EUSES model.

ethoxylate :

SECTION 4 GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO

ethoxylate :

Section 4.1 - Health

No exposure assessment presented for human health.

ethoxylate :

Section 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.

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 on-site technologies, either alone or in combination.

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a sitespecific chemical safety assessment is required.

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Exposure Scenario - Worker

30000000633 Use of NEODOL45_V2456_LV in Metal Work Fluids/RollOils-Professional	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Metal working fluids / rolling oils- Professional
Use Descriptor	Sector of Use: SU22 Process Categories: PROC 1, PROC 2, PROC 3, PROC 5, PROC 8a, PROC 8b, PROC 9, PROC 10, PROC 11, PROC 13, PROC 17 Environmental Release Categories: ERC8a, ERC8d
Scope of process	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.

ethoxylate :

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Additional Information	No exposure assessment presented for human health.

ethoxylate :

Section 2.1	Control of Worker Exposure
Product Characteristics	

ethoxylate :

Contributing Scenarios	Risk Management Measures
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Section 2.2	Control of Environmental Exposure	
Substance is complex UVCB		
Alcohol.		
Readily biodegradable.		
Amounts Used		
Fraction of EU tonnage used in region:		
Regional use tonnage (tonnes/year):		
Fraction of Regional tonnage used locally:		
Annual site tonnage (tonnes/year): 7.5		7.5
Maximum daily site tonnage (kg/day):		25
Frequency and Duration of Use		
Continuous release.		
Emission Days (days/year): 365		365

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Environmental factors not influenced by risk management	140
Local freshwater dilution factor:	10
Local marine water dilution factor:	100
Other Operational Conditions affecting Environmental Exposure	T =
Release fraction to air from process (initial release prior to RMM):	9.60E-03
Release fraction to wastewater from process (initial release prior to RMM):	2.08E-07
Release fraction to soil from process (initial release prior to RMM):	
Technical conditions and measures at process level (source) to pr	event release
Common practices vary across sites thus conservative process re- lease estimates used.	
Technical onsite conditions and measures to reduce or limit disch sions and releases to soil	arges, air emis-
Risk from environmental exposure is driven by marine water.	
If discharging to domestic sewage treatment plant, no secondary wastewater treatment required.	
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 of >= (%)	99
If discharging to domestic sewage treatment plant, no secondary wastewater treatment required.	0
Organisational measures to prevent/limit release from site	J
Sludge should be incinerated, contained or reclaimed.	
Conditions and Measures related to municipal sewage treatment p	lant
Estimated substance removal from wastewater via domestic sewage treatment (%)	99
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	99
Assumed domestic sewage treatment plant flow (m3/d)	2,000
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)	
Conditions and Measures related to external treatment of waste fo	r disposal
External treatment and disposal of waste should comply with applicable regulations.	•
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable regulations.	local and/or regiona

ethoxylate :

SECTION 3	EXPOSURE ESTIMATION

ethoxylate :

Section 3.1 - Health

No exposure assessment presented for human health.

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Section 3.2 - Environment

Used EUSES model.

ethoxylate :

SECTION 4 GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO

ethoxylate :

Section 4.1 - Health

No exposure assessment presented for human health.

ethoxylate :

Section 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.

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 on-site technologies, either alone or in combination.

If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

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Exposure Scenario - Consumer

30000001085 Use of NEODOL45_V2456_LV in Coatings - Consumer	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Uses in Coatings - Consumer
Use Descriptor	Sector of Use: SU21 Product Categories: PC1, PC4, PC8 (excipient only), PC9a, PC9b, PC9c, PC15, PC18, PC23, PC24, PC31, PC34 Environmental Release Categories: ERC8a, ERC8d
Scope of process	Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including product transfer and preparation, application by brush, spray by hand or similar methods) and equipment cleaning.

ethoxylate :

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Additional Information	No exposure assessment presented for human health.	

ethoxylate :

Section 2.1	Control of Consumer Exposure
Product Characteristics	

ethoxylate

Product Categories	OPERATIONAL CONDITIONS AND RISK MANAGEMENT
_	MEASURES

Section 2.2	Control of Environmental Exposu	re
Substance is complex UVCB.		
Alcohol.		
Readily biodegradable.		
Amounts Used		
Fraction of EU tonnage us	sed in region:	
Regional use tonnage (to	nnes/year):	
Fraction of Regional tonnage used locally:		
Annual site tonnage (tonnes/year):		0.87
Maximum daily site tonnage (kg/day):		2.9
Frequency and Duration	of Use	
Continuous release.		
Emission Days (days/year):		300
Environmental factors not influenced by risk management		
Local freshwater dilution f	actor:	10
Local marine water dilution factor:		100

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Other Operational Condition	ns affecting Environmental Exposure	
	rocess (initial release prior to RMM):	0.01
	er from process (initial release prior to	0.01
,	process (initial release prior to RMM):	
	elated to municipal sewage treatment p	plant
	osure is driven by marine water.	
	I from wastewater via domestic sewage	99
Assumed domestic sewage tr	reatment plant flow (m3/d)	2,000
	age (MSafe) based on release following	
total wastewater treatment re	• ,	
	elated to external treatment of waste fo	r disposal
al regulations.	sal of waste should comply with applicable elated to external recovery of waste	e local and/or region-
	ng of waste should comply with applicable	e local and/or regiona
ethoxylate	:	
SECTION 3	EXPOSURE ESTIMATION	
ethoxylate	:	
Section 3.1 - Health		
No exposure assessment pre	sented for human health.	
ethoxylate	:	
Section 3.2 -Environment		
Used EUSES model.		
ethoxylate	:	
SECTION 4	GUIDANCE TO CHECK COMPLIANCE EXPOSURE SCENARIO	WITH THE
ethoxylate	:	
Section 4.1 - Health No exposure assessment pre	sented for human health	
ino exposure assessment pre	Senieu ioi numan nealth.	

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Section 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.

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Exposure Scenario - Consumer

30000001086 Use of NEODOL45_V2456_LV in Cleaning Agents - Consumer		
SECTION 1	EXPOSURE SCENARIO TITLE	
Title	Use in Cleaning Agents - Consumer	
Use Descriptor	Sector of Use: SU21 Product Categories: PC3, PC4, PC8 (excipient only), PC9a, PC9b, PC9c, PC24, PC35, PC38 Environmental Release Categories: ERC8a, ERC8d	
Scope of process	Covers general exposures to consumers arising from the use of household products sold as washing and cleaning products, aerosols, coatings, de-icers, lubricants and air care products.	

ethoxylate :

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Additional Information	No exposure assessment presented for human health.

ethoxylate :

Section 2.1	Control of Consumer Exposure
Product Characteristics	

ethoxylate :

Product Categories	OPERATIONAL CONDITIONS AND RISK MANAGEMENT
	MEASURES

Section 2.2	Control of Environmental Exposure		
Substance is complex UVCB	Substance is complex UVCB.		
Alcohol.			
Readily biodegradable.			
Amounts Used	Amounts Used		
Fraction of EU tonnage used	Fraction of EU tonnage used in region:		
Regional use tonnage (tonnes/year):			
Fraction of Regional tonnage used locally:			
Annual site tonnage (tonnes/year):		0.28	
Maximum daily site tonnage (kg/day):		0.78	
Frequency and Duration of Use			
Continuous release.			
Emission Days (days/year):		365	
Environmental factors not influenced by risk management			

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Local freshwater dilution factor	or:	10
Local marine water dilution fa	100	
	100	
	ns affecting Environmental Exposure rocess (initial release prior to RMM):	0
	er from process (initial release prior to	1
RMM):		1
	process (initial release prior to RMM):	
	elated to municipal sewage treatment p	lant
Risk from environmental expe	•	
Estimated substance remova treatment (%)	I from wastewater via domestic sewage	99
Assumed domestic sewage to	reatment plant flow (m3/d)	2,000
Maximum allowable site tonn	age (MSafe) based on release following	
total wastewater treatment re		
	elated to external treatment of waste fo	r disposal
al regulations.	sal of waste should comply with applicable	local and/or region-
Conditions and measures r	elated to external recovery of waste	
External recovery and recycli regulations.	ng of waste should comply with applicable	local and/or regional
ethoxylate	:	
SECTION 3	EXPOSURE ESTIMATION	
ethoxylate	:	
Section 3.1 - Health		
No exposure assessment pre	esented for human health.	
ethoxylate	:	
Section 3.2 -Environment		
Used EUSES model.		
ethoxylate	:	
SECTION 4	GUIDANCE TO CHECK COMPLIANCE EXPOSURE SCENARIO	WITH THE
ethoxylate	:	
Section 4.1 - Health		
No exposure assessment pre	esented for human health.	

According to EC No 1907/2006 as amended as at the date of this SDS

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ethoxylate

Section 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.