

SAFETY DATA SHEET



NEODECANOIC ACID, PRIME

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

1.1 Product identifier

Product name : NEODECANOIC ACID, PRIME

EC number : 248-093-9

REACH Registration number

Registration number

01-2119449554-33-0000

CAS number : 26896-20-8

Product description : carboxylic acid

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

Intended Use : Chemical Intermediate

Identified uses

Formulation and (re)packing of substances and mixtures
Manufacture of substance
Use as an intermediate
Mining chemicals

1.3 Details of the supplier of the safety data sheet

Supplier : ExxonMobil Petroleum & Chemical BV
POLDERDIJKWEG
Antwerpen B-2030 Belgium

Supplier General Contact : + 32 2 239 3111

e-mail address of person responsible for this SDS : SDS-CC@exxonmobil.com

SDS Internet Address : www.sds.exxonmobil.com

1.4 Emergency telephone number

**National advisory body/
Poison Centre** : (+32)70 245 245

**24 Hour Emergency
Telephone** : +32 2 808 32 37 / +1-703-527-3887 (CHEMTREC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mono-constituent substance

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Acute Tox. 4, H302

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

SECTION 2: Hazards identification

Hazard pictograms :



Signal word :

Warning

Hazard statements :

H302 - Harmful if swallowed.

Precautionary statements

Prevention :

P264 - Wash thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.

Response :

P301 + P330, P312 - IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor if you feel unwell.

Storage :

Not applicable.

Disposal :

P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Contains :

neodecanoic acid

Supplemental label elements :

Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles :

None.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII :

PBT	P	B	T	vPvB	vP	vB
No	N/A	No	No	No	N/A	No

Other hazards which do not result in classification :

None known.

Nota :

This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 3: Composition/information on ingredients

3.1 Substances :

Mono-constituent substance

Product/ingredient name	Identifiers	% by weight	Classification	Specific Conc. Limits, M-factors and ATEs	Type
neodecanoic acid	REACH #: 01-2119449554-33 EC: 248-093-9 CAS: 26896-20-8	100	Acute Tox. 4, H302 See Section 16 for the full text of the H statements declared above.	ATE [Oral] = 1000 mg/kg	[1]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

NEODECANOIC ACID, PRIME

SECTION 3: Composition/information on ingredients

[1] Constituent

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, alcohol-resistant foam or water spray (fog).
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

SECTION 5: Firefighting measures

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous combustion products** : Incomplete combustion products, Oxides of carbon, Smoke, Fume

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Use standard firefighting procedures and consider the hazards of other involved materials. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Assure an extended cooling down period to prevent re-ignition. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Confine the spill immediately with booms. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants. Warn other shipping. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

6.4 Reference to other sections

- : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Static Accumulator** : This material is not a static accumulator.
- Loading/Unloading Temperature** : Ambient
- Transport Temperature** : Ambient
- Transport Pressure** : Ambient

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Storage Temperature : Ambient

Storage Pressure : Ambient

Suitable Materials and Coatings : Phenolic Coatings, polyethylene, polypropylene, aluminium, Stainless Steel

Unsuitable Materials and Coatings : copper, Inorganic Zinc, Amine Epoxy, Polyamide, Epoxies

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
neodecanoic acid	ExxonMobil (COMPANY) TWA 8 hours: 5 mg/m ³ . Form: Stable Aerosol.. TWA 8 hours: 25 mg/m ³ . Form: Vapour..

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

SECTION 8: Exposure controls/personal protection

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
neodecanoic acid	DNEL	Long term Dermal	1.06 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	7.41 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	1.88 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	22.04 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	6.52 mg/m ³	General population	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
neodecanoic acid	Fresh water	0.478 mg/l	-
	Marine water	0.0478 mg/l	-

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. < 1 hour (breakthrough time): Nitrile, minimum 0.38 mm thickness or comparable protective barrier material

SECTION 8: Exposure controls/personal protection

- CEN standards EN 420 and EN 374 provide general requirements and lists of glove types.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: organic vapour filter (Type A)
- European Committee for Standardization (CEN) standards EN 136, 140 and 405 provide respirator masks and EN 149 and 143 provide filter recommendations.
- 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

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Liquid. [Clear]
- Colour** : Colourless
- Odour** : Mild
- Odour threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : -39°C (-38.2°F)
- Boiling point or initial boiling point and boiling range** : 245 to 265°C (473 to 509°F) [ASTM D1078]
- Flash point** : Closed cup: >100°C (>212°F) [ASTM D-93]
- Evaporation rate** : <1 (butyl acetate = 1) [In-house method]
- Flammability** : Ignitable
- Lower and upper explosion limit** : Lower: 1.4% [In-house method]
Upper: 12.4%
- Vapour pressure** : 0.09 mm Hg [50 °C] [In-house method]
- Relative vapour density** : >1 [Air = 1] [Calculated]
- Relative density** : 0.913 [Calculated]
- Density** : 0.911 g/cm³ [20°C (68°F)] [ASTM D4052]
- Solubility in water** : Negligible
- Partition coefficient n-octanol/water (log Pow)** : 3.83 [OECD 117]
- Auto-ignition temperature** : >300°C (>572°F) [In-house method]
- Decomposition temperature** : Not available.
- Viscosity** : 40 cSt [20 °C] [ASTM D7042]
- Molecular weight** : 172

Particle characteristics

- Median particle size** : Not applicable.

NEODECANOIC ACID, PRIME

SECTION 9: Physical and chemical properties

9.2 Other information

Pour point	: <-40°C [ASTM D5950]
Hygroscopic	: No
Coefficient of Thermal Expansion	: 0.0004 per Deg C

SECTION 10: Stability and reactivity

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: The product is stable.
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: High energy sources of ignition. Excessive heat.
10.5 Incompatible materials	: Ammonia, Inorganic acids, Caustics, amines, Alkanolamines, Aldehydes, Monomers, Polymerisable esters, Strong oxidisers, Alkylene Oxides, Cyanohydrins, Nitriles
10.6 Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
neodecanoic acid	LC50 Inhalation Vapour	Rat	>3 mg/l	6 hours
	LD50 Dermal	Rabbit	>3640 mg/kg	-
neodecanoic acid	LD50 Oral	Rat	1000 mg/kg	-

Conclusion/Summary

Inhalation	: Minimally Toxic. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 403
Dermal	: Minimally Toxic. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 402
Oral	: Slightly toxic. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 423

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
neodecanoic acid	1000	N/A	N/A	N/A	N/A
neodecanoic acid	1000	N/A	N/A	N/A	N/A

Irritation/Corrosion

Conclusion/Summary

Skin	: Negligible irritation to skin at ambient temperatures. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 404
Eyes	: May cause mild, short-lasting discomfort to eyes. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 405

SECTION 11: Toxicological information

Respiratory : Negligible hazard at ambient/normal handling temperatures. Data available. Elevated temperatures or mechanical action may form vapours, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.

Respiratory or skin sensitization

Conclusion/Summary

Skin : Not expected to be a skin sensitizer. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 406

Respiratory : Not expected to be a respiratory sensitizer. No end point data for material.

Mutagenicity

Conclusion/Summary : Not expected to be a germ cell mutagen. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 471 473

Carcinogenicity

Conclusion/Summary : Not expected to cause cancer. No end point data for material.

Reproductive toxicity

Conclusion/Summary : Not expected to be a reproductive toxicant. Data available. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 414 416

Specific target organ toxicity (single exposure)

Conclusion/Summary : Not expected to cause organ damage from a single exposure. No end point data for material.

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Target organs
neodecanoic acid	Not applicable.	-

Conclusion/Summary : Not expected to cause organ damage from prolonged or repeated exposure. Data available. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 407 408 410 411 412 413 452

Aspiration hazard

Conclusion/Summary : Not expected to be an aspiration hazard. Based on physico-chemical properties of the material. Data available.

Information on likely routes of exposure : Not available.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

No known endocrine disrupting properties that affect human health

Section 12. Ecological information

The information given is based on data for the material, components of the material, or for similar materials, through the application of bridging principals.

12.1 Toxicity

Product/ingredient name	Duration	Species	Result
neodecanoic acid	72 hours	Algae - <i>Pseudokirchneriella subcapitata</i>	Acute EL50 >100 mg/l
	48 hours	daphnia - <i>Daphnia magna</i>	Acute EL50 >1000 mg/l
	96 hours	Fish - <i>Oncorhynchus mykiss</i>	Acute LL50 100 to 300 mg/l
	21 days	daphnia - <i>Daphnia magna</i>	Chronic LOEC 10.1 mg/l
	14 days	Fish - <i>Oncorhynchus mykiss</i>	Chronic NOEC >2.22 mg/l
	21 days	daphnia - <i>Daphnia magna</i>	Chronic NOEC 4.78 mg/l

Conclusion/Summary

Section 12. Ecological information

- Acute toxicity** : Not expected to be harmful to aquatic organisms.
Chronic toxicity : Not expected to demonstrate chronic toxicity to aquatic organisms

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Qualifier	Media
neodecanoic acid	Ready Biodegradability	11 % - 28 days	-	water

- Photolysis** : 0.58 day(s)
Biodegradability : Material -- Expected to biodegrade slowly.
Hydrolysis : Material -- Transformation due to hydrolysis not expected to be significant.
Photolysis : Material -- Transformation due to photolysis not expected to be significant.
Atmospheric Oxidation : Material -- Expected to degrade rapidly in air

12.3 Bioaccumulative potential

- Bioconcentration factor (BCF)** : <225 14day(s)
Conclusion/Summary : Material -- Potential to bioaccumulate is low.

12.4 Mobility in soil

- Soil/water partition coefficient (K_{oc})** : 2.08 Media:Sediment
Mobility : Material -- Expected to partition to water. Some partitioning to sediment and wastewater solids. Minimally volatile.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
neodecanoic acid	No	N/A	No	No	No	N/A	No

12.6 Endocrine disrupting properties

No known endocrine disrupting properties that affect the environment

12.7 Other adverse effects

- Other adverse effects** : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

NEODECANOIC ACID, PRIME

SECTION 13: Disposal considerations

The European Waste Catalogue (EWC) code is specific to the waste generating process and waste constituents. Determine the EWC according to the criteria provided in the European Waste Catalogue and the hazardous waste list established by Commission Decision 2000/532/EC, as amended.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. **DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.**

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments

Proper shipping name : neodecanoic acid

Remarks : **Liquid bulk cargoes:**
Ship type: 2
Pollution category: Y

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

NEODECANOIC ACID, PRIME

SECTION 15: Regulatory information

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : None.

Other EU regulations

Explosive precursors : Not applicable.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

Inventory list

Australia inventory (AIC)	: All components are listed or exempted.
Canada inventory (DSL-NDSL)	: All components are listed or exempted.
China inventory (IECSC)	: All components are listed or exempted.
Japan inventory (CSCL)	: All components are listed or exempted.
Japan inventory (Industrial Safety and Health Act)	: All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC)	: All components are listed or exempted.
Philippines inventory (PICCS)	: All components are listed or exempted.
Korea inventory (KECI)	: All components are listed or exempted.
Taiwan Chemical Substances Inventory (TCSI)	: All components are listed or exempted.
United States inventory (TSCA 8b)	: All components are active or exempted.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

🔍 Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Acute Tox. 4, H302	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
------	-----------------------

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
--------------	-----------------------------

NEODECANOIC ACID, PRIME

SECTION 16: Other information

Date of issue/ Date of revision : 6 November 2024
Date of previous issue : 13 October 2024
Version : 1.05
Product code : 1161336_13632402

Notice to reader

"The information and recommendations contained herein are, to the best of ExxonMobil's knowledge and belief, accurate and reliable as of the date issued. You can contact ExxonMobil to insure that this document is the most current available from ExxonMobil. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted. The term, ""ExxonMobil"" is used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliates in which they directly or indirectly hold any interest."

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : 1161336_13632402
Product name : NEODECANOIC ACID, PRIME <C>

Section 1 - Title

Short title of the exposure scenario : Formulation and (re)packing of substances and mixtures

List of use descriptors : **Identified use name:** Formulation and (re)packing of substances and mixtures
Process Category: PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09, PROC15, PROC28
Sector of end use: SU03, SU10
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC02

Environmental contributing scenarios : **General measures applicable to all activities** - ERC02

Health Contributing scenarios : **General measures applicable to all activities** - PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC15, PROC28
General exposures (closed systems) - PROC01
General exposures - PROC02
General exposures (Use in closed batch process) - PROC03
General exposures (open systems) - PROC04
Laboratory activities - PROC15
Bulk transfers - PROC08b
Mixing operations (open systems) - PROC05
Manual - PROC08a
Drum/batch transfers - PROC08b
Drum and small package filling - PROC09
Equipment cleaning and maintenance - PROC08a, PROC28
Storage - PROC01
Storage - PROC02
Process sampling - PROC03, PROC09

Processes and activities covered by the exposure scenario	: Formulation, packing and re-packing of the substance and its mixtures in batch or continuous operations, including storage, materials transfers, mixing, tableting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities.
--	---

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: General measures applicable to all activities

Product characteristics	: Substance is complex UVCB.
Amounts used	: Annual site tonnage: <= 6E3 tonnes/year Maximum daily site tonnage: <= 20 tonnes/day
Other operational conditions of use affecting environmental exposure	: Indoor or outdoor use Process optimised for highly efficient use of raw materials.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: No release to wastewater from process as such, wastewater emissions limited to release generated from final equipment cleaning step using water
Conditions and measures related to municipal sewage treatment plant	: Discharge rate of Sewage Treatment Plant : >= 2E3 m ³ /day Biological STP: Standard [Effectiveness Water]: 5.162 % Controlled application of sewage sludge to agricultural soil: Yes

Date of issue/Date of revision : 6/12/2024

14/45

Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**General measures (eye irritants)**

Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.

General measures (skin irritants)

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Assumes a good basic standard of occupational hygiene is implemented
Place of use: Indoor use

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 3: General exposures (closed systems)

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Assumes a good basic standard of occupational hygiene is implemented
Place of use: Indoor use

Technical conditions and measures at process level (source) to prevent release : Closed process without likelihood of exposure

Ventilation control measures : Room ventilation: Enhanced (5 to 10 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 4: General exposures

Closed continuous process with occasional controlled exposure

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Assumes a good basic standard of occupational hygiene is implemented
Place of use: Indoor use

Transfer rate for liquid products: 100 - 1000 L/min

Splash loading

Distance of workers to the source: <1 m

Technical conditions and measures at process level (source) to prevent release : Closed continuous process with occasional controlled exposure

Ventilation control measures : Room ventilation: Enhanced (5 to 10 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 5: General exposures (Use in closed batch process)

Closed systems

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Assumes a good basic standard of occupational hygiene is implemented
Place of use: Indoor use
Transfer rate for liquid products: 100 - 1000 L/min
Splash loading
Distance of workers to the source: <1 m

Technical conditions and measures at process level (source) to prevent release : Closed batch process with occasional controlled exposure

Ventilation control measures : Room ventilation: Good (3 to 5 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Contributing scenario controlling worker exposure for 6: General exposures (open systems)

Transfer via enclosed lines.

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 4h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Assumes a good basic standard of occupational hygiene is implemented
Place of use: Indoor use
Transfer rate for liquid products: 100 - 1000 L/min
Splash loading
Distance of workers to the source: <1 m

Ventilation control measures : Room ventilation: Good (3 to 5 ACH)
Local exhaust ventilation: Yes. Local exhaust ventilation (effectiveness >= 80-90%)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Contributing scenario controlling worker exposure for 7: Laboratory activities

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure	: Operating temperature: <= 20°C Assumes a good basic standard of occupational hygiene is implemented Place of use: Indoor use
Ventilation control measures	: Room ventilation: Basic (up to 3 ACH) Local exhaust ventilation: Yes. Ensure on-tool extraction is used. or Ensure fixed capturing hood is used. (effectiveness >= 90-95 %)
Conditions and measures related to personal protection, hygiene and health evaluation	
Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 8: Bulk transfers

Dedicated facility

Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 8 h/day
Other operational conditions affecting worker exposure	: Operating temperature: <= 20°C Assumes a good basic standard of occupational hygiene is implemented Place of use: Indoor use Transfer rate for liquid products: 100 - 1000 L/min Splash loading Distance of workers to the source: <1 m
Ventilation control measures	: Room ventilation: Basic (up to 3 ACH) Local exhaust ventilation: Yes. Ensure on-tool extraction is used. or Ensure fixed capturing hood is used. (effectiveness >= 90-95 %)
Conditions and measures related to personal protection, hygiene and health evaluation	
Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented
Personal protection	: Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Contributing scenario controlling worker exposure for 9: Mixing operations (open systems)

Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 8 h/day
Other operational conditions affecting worker exposure	: Operating temperature: <= 20°C Assumes a good basic standard of occupational hygiene is implemented Place of use: Indoor use
Ventilation control measures	: Room ventilation: Basic (up to 3 ACH) Local exhaust ventilation: Yes. Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure. (effectiveness >= 95 %)
Conditions and measures related to personal protection, hygiene and health evaluation	
Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 10: Manual

Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure	: Operating temperature: <= 20°C Assumes a good basic standard of occupational hygiene is implemented Place of use: Indoor use Transfer rate for liquid products: 100 - 1000 L/min Splash loading Distance of workers to the source: <1 m
Ventilation control measures	: Room ventilation: Basic (up to 3 ACH) Local exhaust ventilation: Yes. Ensure on-tool extraction is used. or Ensure fixed capturing hood is used. (effectiveness >= 90-95 %)
Conditions and measures related to personal protection, hygiene and health evaluation	
Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented
Personal protection	: Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Contributing scenario controlling worker exposure for 11: Drum/batch transfers

Dedicated facility

Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 8 h/day
Other operational conditions affecting worker exposure	: Operating temperature: <= 20°C Assumes a good basic standard of occupational hygiene is implemented Place of use: Indoor use Transfer rate for liquid products: 100 - 1000 L/min Splash loading Distance of workers to the source: <1 m
Ventilation control measures	: Room ventilation: Basic (up to 3 ACH) Local exhaust ventilation: Yes. Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure. (effectiveness >= 95 %)
Conditions and measures related to personal protection, hygiene and health evaluation	
Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented
Personal protection	: Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Contributing scenario controlling worker exposure for 12: Drum and small package filling

Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 8 h/day
Other operational conditions affecting worker exposure	: Operating temperature: <= 20°C Assumes a good basic standard of occupational hygiene is implemented Place of use: Indoor use
Ventilation control measures	: Room ventilation: Basic (up to 3 ACH) Local exhaust ventilation: Yes. Ensure on-tool extraction is used. or Ensure fixed capturing hood is used. (effectiveness >= 90-95 %)
Conditions and measures related to personal protection, hygiene and health evaluation	
Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented
Personal protection	: Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 90 %)

Contributing scenario controlling worker exposure for 13: Equipment cleaning and maintenance

Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 8 h/day
Other operational conditions affecting worker exposure	: Operating temperature:<= 20°C Assumes a good basic standard of occupational hygiene is implemented Place of use: Indoor use
Ventilation control measures	: Room ventilation: Basic (up to 3 ACH) Local exhaust ventilation: Yes. Ensure fixed capturing hood is used. (effectiveness>= 90-95%)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented
Personal protection	: Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 80 %)

Contributing scenario controlling worker exposure for 14: Storage

Continuous process	
Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 8 h/day
Other operational conditions affecting worker exposure	: Operating temperature:<= 20°C Assumes a good basic standard of occupational hygiene is implemented Place of use: Indoor use
Technical conditions and measures at process level (source) to prevent release	: Closed continuous process with occasional controlled exposure Store substance within a closed system.

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented
Personal protection	: Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Contributing scenario controlling worker exposure for 15: Storage

Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 8 h/day
Other operational conditions affecting worker exposure	: Operating temperature:<= 20°C Assumes a good basic standard of occupational hygiene is implemented Place of use: Indoor use Transfer rate for liquid products: 100 - 1000 L/min Splash loading Distance of workers to the source: <1 m
Ventilation control measures	: Room ventilation: Basic (up to 3 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented
---	--

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Contributing scenario controlling worker exposure for 16: Process sampling

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Assumes a good basic standard of occupational hygiene is implemented
Place of use: Indoor use

Ventilation control measures : Room ventilation: Basic (up to 3 ACH)
Local exhaust ventilation: Yes. Ensure on-tool extraction is used. or Ensure fixed capturing hood is used. (effectiveness>= 90-95 %)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Section 3 - Exposure estimation and reference to its source

Website: : Not applicable.

Exposure estimation and reference to its source - Environment: 1: General measures applicable to all activities

Exposure assessment (environment): : Hydrocarbon Block Method (Petrorisk)

Exposure estimation and reference to its source : ESVOC SPERC 1.1.v1

Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 3: General exposures (closed systems)

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 4: General exposures

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 5: General exposures (Use in closed batch process)

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 6: General exposures (open systems)

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 7: Laboratory activities

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 8: Bulk transfers

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 9: Mixing operations (open systems)

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 10: Manual

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 11: Drum/batch transfers

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 12: Drum and small package filling

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 13: Equipment cleaning and maintenance

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 14: Storage

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 15: Storage

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 16: Process sampling

Exposure assessment (human):	: The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	: Not available.

Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environment	: Not available.
Health	: Not available.

Additional good practice advice beyond the REACH CSA

Environment	: Not available.
Health	: Not available.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : 1161336_13632402
Product name : NEODECANOIC ACID, PRIME <C>

Section 1 - Title

Short title of the exposure scenario : Manufacture of substance

List of use descriptors : **Identified use name:** Manufacture of substance
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC15, PROC28
Sector of end use: SU03, SU08, SU09, SU10
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC01

Environmental contributing scenarios : **General measures applicable to all activities** - ERC01

Health Contributing scenarios : **General measures applicable to all activities** - PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC15, PROC28
General exposures (closed systems) - PROC01
General exposures (open systems) - PROC04
Process sampling - PROC08b
Laboratory activities - PROC15
Bulk transfers (closed systems) - PROC08b
Bulk transfers - PROC08b
Equipment cleaning and maintenance - PROC28
Storage - PROC01
General exposures - PROC02
General exposures (Use in closed batch process) - PROC03
Storage - PROC02

Processes and activities covered by the exposure scenario	: Manufacture of the substance or use as an intermediate or 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.
--	---

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: General measures applicable to all activities	
Product characteristics	: Substance is complex UVCB.
Amounts used	: Annual site tonnage: <=tonnes/year Maximum daily site tonnage: 0 tonnes/day
Other operational conditions of use affecting environmental exposure	: Indoor use Process optimised for highly efficient use of raw materials.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: No release to wastewater from process as such, wastewater emissions limited to release generated from final equipment cleaning step using water
Conditions and measures related to municipal sewage treatment plant	: Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs: 70 % Controlled application of sewage sludge to agricultural soil:Yes Biological STP: Standard [Effectiveness Water]: 5.162 % Assumed on-site sewage treatment plant flow: >= 2E3 m ³ /day

Date of issue/Date of revision : 6/12/2024

23/45

Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**General measures (eye irritants)**

Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.

General measures (skin irritants)

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Assumes a good basic standard of occupational hygiene is implemented
Place of use: Indoor use

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 3: General exposures (closed systems)

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Assumes a good basic standard of occupational hygiene is implemented
Place of use: Indoor use

Technical conditions and measures at process level (source) to prevent release : Closed continuous process with occasional controlled exposure

Ventilation control measures : Room ventilation: Enhanced (5 to 10 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 80 %)

Contributing scenario controlling worker exposure for 4: General exposures (open systems)

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 4h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Assumes a good basic standard of occupational hygiene is implemented
Place of use: Indoor use

Ventilation control measures : Room ventilation: Enhanced (5 to 10 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Contributing scenario controlling worker exposure for 5: Process sampling

Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 8 h/day
Other operational conditions affecting worker exposure	: Operating temperature:<= 20°C Assumes a good basic standard of occupational hygiene is implemented Place of use: Indoor use
Ventilation control measures	: Room ventilation: Basic (up to 3 ACH) Local exhaust ventilation: Yes. Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure. (effectiveness>= 90 %)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented
Personal protection	: Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Contributing scenario controlling worker exposure for 6: Laboratory activities

Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 8 h/day
Other operational conditions affecting worker exposure	: Operating temperature:<= 20°C Assumes a good basic standard of occupational hygiene is implemented Place of use: Indoor use
Ventilation control measures	: Room ventilation: Enhanced (5 to 10 ACH) Local exhaust ventilation: Yes. Ensure fixed capturing hood is used. (effectiveness>= 90-95%)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented
---	--

Contributing scenario controlling worker exposure for 7: Bulk transfers (closed systems)

Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 8 h/day
Other operational conditions affecting worker exposure	: Operating temperature:<= 20°C Assumes a good basic standard of occupational hygiene is implemented Place of use: Indoor use
Ventilation control measures	: Room ventilation: Basic (up to 3 ACH) Local exhaust ventilation: Yes. Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure. (effectiveness>= 95 %)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented
Personal protection	: Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Contributing scenario controlling worker exposure for 8: Bulk transfers

Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 8 h/day
Other operational conditions affecting worker exposure	: Operating temperature:<= 20°C Assumes a good basic standard of occupational hygiene is implemented Place of use: Indoor use
Ventilation control measures	: Room ventilation: Basic (up to 3 ACH) Local exhaust ventilation: Yes. Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure. (effectiveness>= 95 %)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented
Personal protection	: Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Contributing scenario controlling worker exposure for 9: Equipment cleaning and maintenance

Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 8 h/day
Other operational conditions affecting worker exposure	: Operating temperature:<= 20°C Assumes a good basic standard of occupational hygiene is implemented Place of use: Indoor use
Ventilation control measures	: Room ventilation: Basic (up to 3 ACH) Local exhaust ventilation: Yes. Ensure fixed capturing hood is used. (effectiveness>= 90-95%)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented
Personal protection	: Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Contributing scenario controlling worker exposure for 10: Storage

Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 8 h/day
Other operational conditions affecting worker exposure	: Operating temperature:<= 20°C Assumes a good basic standard of occupational hygiene is implemented Place of use: Indoor use
Technical conditions and measures at process level (source) to prevent release	: Closed process without likelihood of exposure Store substance within a closed system.
Ventilation control measures	: Room ventilation: Basic (up to 3 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented
---	--

Contributing scenario controlling worker exposure for 11: General exposures

Closed systems

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%**Physical state** : Liquid**Frequency and duration of use/exposure** : Duration of activity: <= 8 h/day**Other operational conditions affecting worker exposure** : Operating temperature:<= 20°C
Assumes a good basic standard of occupational hygiene is implemented
Place of use: Indoor use**Technical conditions and measures at process level (source) to prevent release** : Closed continuous process with occasional controlled exposure**Ventilation control measures** : Room ventilation: Enhanced (5 to 10 ACH)**Conditions and measures related to personal protection, hygiene and health evaluation****Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented**Contributing scenario controlling worker exposure for 12: General exposures (Use in closed batch process)****Concentration of substance in mixture or article** : Covers percentage substance in the product up to 100%**Physical state** : Liquid**Frequency and duration of use/exposure** : Duration of activity: <= 8 h/day**Other operational conditions affecting worker exposure** : Operating temperature:<= 20°C
Assumes a good basic standard of occupational hygiene is implemented
Place of use: Indoor use**Technical conditions and measures at process level (source) to prevent release** : Closed batch process with occasional controlled exposure**Ventilation control measures** : Room ventilation: Good (3 to 5 ACH)**Conditions and measures related to personal protection, hygiene and health evaluation****Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented**Contributing scenario controlling worker exposure for 13: Storage**

Continuous process

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%**Physical state** : Liquid**Frequency and duration of use/exposure** : Duration of activity: <= 8 h/day**Other operational conditions affecting worker exposure** : Operating temperature:<= 20°C
Assumes a good basic standard of occupational hygiene is implemented
Place of use: Indoor use**Technical conditions and measures at process level (source) to prevent release** : Closed continuous process with occasional controlled exposure
Store substance within a closed system.**Conditions and measures related to personal protection, hygiene and health evaluation****Advice on general occupational hygiene** : Assumes a good basic standard of occupational hygiene is implemented**Personal protection** : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Section 3 - Exposure estimation and reference to its source

Website:	: Not applicable.
Exposure estimation and reference to its source - Environment: 1: General measures applicable to all activities	
Exposure assessment (environment):	: Hydrocarbon Block Method (Petrorisk)
Exposure estimation and reference to its source	: ESVOC SPERC 1.1.v1
Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities	
Exposure assessment (human):	: The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	: Not available.
Exposure estimation and reference to its source - Workers: 3: General exposures (closed systems)	
Exposure assessment (human):	: The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	: Not available.
Exposure estimation and reference to its source - Workers: 4: General exposures (open systems)	
Exposure assessment (human):	: The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	: Not available.
Exposure estimation and reference to its source - Workers: 5: Process sampling	
Exposure assessment (human):	: The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	: Not available.
Exposure estimation and reference to its source - Workers: 6: Laboratory activities	
Exposure assessment (human):	: The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	: Not available.
Exposure estimation and reference to its source - Workers: 7: Bulk transfers (closed systems)	
Exposure assessment (human):	: The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	: Not available.
Exposure estimation and reference to its source - Workers: 8: Bulk transfers	
Exposure assessment (human):	: The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	: Not available.
Exposure estimation and reference to its source - Workers: 9: Equipment cleaning and maintenance	
Exposure assessment (human):	: The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	: Not available.

Exposure estimation and reference to its source - Workers: 10: Storage

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 11: General exposures

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 12: General exposures (Use in closed batch process)

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 13: Storage

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environment : Not available.

Health : Not available.

Additional good practice advice beyond the REACH CSA

Environment : Not available.

Health : Not available.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : 1161336_13632402
Product name : NEODECANOIC ACID, PRIME <C>

Section 1 - Title

Short title of the exposure scenario : Use as an intermediate

List of use descriptors : **Identified use name:** Use as an intermediate
Process Category: PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC15, PROC28
Sector of end use: SU03, SU08, SU09
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC06a

Environmental contributing scenarios : **General measures applicable to all activities** - ERC06a

Health Contributing scenarios : **General measures applicable to all activities** - PROC01, PROC02, PROC03, PROC04, PROC08a, PROC08b, PROC09, PROC15, PROC28
General exposures (closed systems) - PROC01
General exposures - PROC02
General exposures (Use in closed batch process) - PROC03
General exposures (open systems) - PROC04
Process sampling - PROC08b, PROC09
Laboratory activities - PROC15
Bulk transfers (closed systems) - PROC08b
Bulk transfers - PROC08b
Equipment cleaning and maintenance - PROC08a, PROC28
Storage - PROC01
Storage - PROC02

Processes and activities covered by the exposure scenario	: 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).
--	---

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: General measures applicable to all activities

Product characteristics	: Substance is complex UVCB.
Amounts used	: Annual site tonnage: <= 7.1E3 tonnes/year Maximum daily site tonnage: <= 20 tonnes/day
Other operational conditions of use affecting environmental exposure	: Indoor use Contact with water during use. Local freshwater dilution factor: <= 100 Local marine water dilution factor: <= 1E3
Technical conditions and measures at process level (source) to prevent release	: Assumes no free product in wastewater stream; oil-water separation (e.g. via oil water separators, oil skimmers, dissolved air floatation) may be required under some circumstances.
Conditions and measures related to municipal sewage treatment plant	: Discharge rate of Sewage Treatment Plant : >= 2E3 m ³ /day Biological STP: Standard [Effectiveness Water]: 5.162 % Controlled application of sewage sludge to agricultural soil: No

Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**General measures (eye irritants)**

Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.

General measures (skin irritants)

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Place of use: Indoor use

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 3: General exposures (closed systems)

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Place of use: Indoor use

Technical conditions and measures at process level (source) to prevent release : Closed process without likelihood of exposure

Ventilation control measures : Room ventilation: Basic (up to 3 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 4: General exposures

Closed continuous process with occasional controlled exposure

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Place of use: Indoor use
Transfer rate for liquid products: 100 - 1000 L/min
Splash loading
Distance of workers to the source: <1 m

Technical conditions and measures at process level (source) to prevent release : Closed continuous process with occasional controlled exposure

Ventilation control measures : Room ventilation: Enhanced (5 to 10 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 5: General exposures (Use in closed batch process)

Closed systems

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Place of use: Indoor use
Transfer rate for liquid products: 100 - 1000 L/min
Splash loading
Distance of workers to the source: <1 m

Technical conditions and measures at process level (source) to prevent release : Closed batch process with occasional controlled exposure

Ventilation control measures : Room ventilation: Basic (up to 3 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Contributing scenario controlling worker exposure for 6: General exposures (open systems)

Transfer via enclosed lines.

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Assumes a good basic standard of occupational hygiene is implemented
Place of use: Indoor use
Transfer rate for liquid products: 100 - 1000 L/min
Splash loading
Distance of workers to the source: <1 m

Ventilation control measures : Room ventilation: Enhanced (5 to 10 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 90 %)

Contributing scenario controlling worker exposure for 7: Process sampling

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 2 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Place of use: Indoor use

Ventilation control measures : Room ventilation: Enhanced (5 to 10 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Contributing scenario controlling worker exposure for 8: Laboratory activities

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Place of use: Indoor use

Ventilation control measures : Room ventilation: Enhanced (5 to 10 ACH)
Local exhaust ventilation: Yes. Ensure on-tool extraction is used. or Ensure fixed capturing hood is used. (effectiveness>= 90-95 %)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Contributing scenario controlling worker exposure for 9: Bulk transfers (closed systems)

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 4h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Place of use: Indoor use
Transfer rate for liquid products: 100 - 1000 L/min
Splash loading
Distance of workers to the source: <1 m

Ventilation control measures : Room ventilation: Enhanced (5 to 10 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Contributing scenario controlling worker exposure for 10: Bulk transfers

Open systems

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Place of use: Indoor use
Transfer rate for liquid products: 100 - 1000 L/min
Splash loading
Distance of workers to the source: <1 m

Ventilation control measures : Room ventilation: Enhanced (5 to 10 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness $\geq 95\%$)

Contributing scenario controlling worker exposure for 11: Equipment cleaning and maintenance

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: ≤ 4 h/day

Other operational conditions affecting worker exposure : Operating temperature: $\leq 20^\circ\text{C}$
Place of use: Indoor use

Ventilation control measures : Room ventilation: Good (3 to 5 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness $\geq 95\%$)

Contributing scenario controlling worker exposure for 12: Storage

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: ≤ 8 h/day

Other operational conditions affecting worker exposure : Operating temperature: $\leq 20^\circ\text{C}$
Place of use: Indoor use

Technical conditions and measures at process level (source) to prevent release : Closed process without likelihood of exposure
Store substance within a closed system.

Ventilation control measures : Room ventilation: Basic (up to 3 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 13: Storage

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: ≤ 8 h/day

Other operational conditions affecting worker exposure : Operating temperature: $\leq 20^\circ\text{C}$
Place of use: Indoor use
Transfer rate for liquid products: 100 - 1000 L/min
Distance of workers to the source: < 1 m

Technical conditions and measures at process level (source) to prevent release : Closed continuous process with occasional controlled exposure
Store substance within a closed system.

Ventilation control measures : Room ventilation: Good (3 to 5 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness $\geq 95\%$)

Section 3 - Exposure estimation and reference to its source

Website: : Not applicable.

Exposure estimation and reference to its source - Environment: 1: General measures applicable to all activities

Exposure assessment (environment): : Hydrocarbon Block Method (Petrorisk)

Exposure estimation and reference to its source : ESVOC SPERC 1.1.v1

Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 3: General exposures (closed systems)

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 4: General exposures

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 5: General exposures (Use in closed batch process)

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 6: General exposures (open systems)

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 7: Process sampling

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 8: Laboratory activities

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 9: Bulk transfers (closed systems)

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 10: Bulk transfers

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 11: Equipment cleaning and maintenance

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 12: Storage

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 13: Storage

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environment : Not available.

Health : Not available.

Additional good practice advice beyond the REACH CSA

Environment : Not available.

Health : Not available.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mono-constituent substance
Code : 1161336_13632402
Product name : NEODECANOIC ACID, PRIME <C>

Section 1 - Title

Short title of the exposure scenario : Mining chemicals

List of use descriptors : **Identified use name:** Mining chemicals
Process Category: PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09, PROC28
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04

Environmental contributing scenarios : **Industrial use of processing aids in processes and products, not becoming part of articles - ERC04**

Health Contributing scenarios : **General measures applicable to all activities - PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09, PROC28**
General exposures (closed systems) - PROC03
General exposures (open systems) - PROC05
Drum/batch transfers - PROC08b
Pouring from small containers - PROC09
General exposure (open systems); With potential for aerosol generation - PROC05
Phase separation - PROC04
Phase separation - PROC04
Ion exchange processes - PROC02
Process sampling - PROC03, PROC09
Mixing operations (closed systems) - PROC01
Equipment cleaning and maintenance - PROC08a, PROC28
Storage - PROC02
Bulk transfers (closed systems)

Processes and activities covered by the exposure scenario	: Covers the use of the substance in extraction processes at mining operations, including material transfers, winning and separation activities, and substance recovery and disposal.
--	---

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: Industrial use of processing aids in processes and products, not becoming part of articles	
Product characteristics	: Substance is complex UVCB.
Amounts used	: Annual site tonnage: <= 1 tonnes/year Maximum daily site tonnage: <= 0.01 tonnes/day
Other operational conditions of use affecting environmental exposure	: Indoor use Contact with water during use.
Technical conditions and measures at process level (source) to prevent release	: Assumes no free product in wastewater stream; oil-water separation (e.g. via oil water separators, oil skimmers, dissolved air floatation) may be required under some circumstances.
Conditions and measures related to municipal sewage treatment plant	: Discharge rate of Sewage Treatment Plant : >= 2E3 m ³ /day Biological STP: Standard [Effectiveness Water]: 5.162 % Controlled application of sewage sludge to agricultural soil: No

Contributing scenario controlling worker exposure for 2: General measures applicable to all activities**General measures (eye irritants)**

Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.

General measures (skin irritants)

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop.

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Place of use: Indoor use

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 3: General exposures (closed systems)

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Place of use: Indoor use

Technical conditions and measures at process level (source) to prevent release : Closed batch process with occasional controlled exposure

Ventilation control measures : Room ventilation: Basic (up to 3 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 4: General exposures (open systems)

Transfer via enclosed lines.

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Place of use: Indoor use

Ventilation control measures : Room ventilation: Enhanced (5 to 10 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 90 %)

Contributing scenario controlling worker exposure for 5: Drum/batch transfers

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Place of use: Indoor use
Transfer rate for liquid products: 100 - 1000 L/min
Splash loading
Distance of workers to the source: <1 m

Ventilation control measures : Room ventilation: Basic (up to 3 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 90 %)

Contributing scenario controlling worker exposure for 6: Pouring from small containers

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Place of use: Indoor use
Transfer rate for liquid products:1 -10L/min
Splash loading
Distance of workers to the source: <1 m

Ventilation control measures : Room ventilation: Basic (up to 3 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 80 %)

Contributing scenario controlling worker exposure for 7: General exposure (open systems); With potential for aerosol generation

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Place of use: Indoor use

Ventilation control measures : Room ventilation: Enhanced (5 to 10 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 90 %)

Contributing scenario controlling worker exposure for 8: Phase separation

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Place of use: Indoor use

Ventilation control measures : Room ventilation: Good (3 to 5 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 90 %)

Contributing scenario controlling worker exposure for 9: Phase separation

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Place of use: Indoor use

Ventilation control measures : Room ventilation: Good (3 to 5 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Personal protection : Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 90 %)

Contributing scenario controlling worker exposure for 10: Ion exchange processes

Closed systems

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100%

Physical state : Liquid

Frequency and duration of use/exposure : Duration of activity: <= 8 h/day

Other operational conditions affecting worker exposure : Operating temperature:<= 20°C
Place of use: Indoor use

Technical conditions and measures at process level (source) to prevent release : Closed continuous process with occasional controlled exposure

Ventilation control measures : Room ventilation: Basic (up to 3 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Assumes a good basic standard of occupational hygiene is implemented

Contributing scenario controlling worker exposure for 11: Process sampling

Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 8 h/day
Other operational conditions affecting worker exposure	: Operating temperature:<= 20°C Place of use: Indoor use Transfer rate for liquid products: 1 -10L/min Splash loading Distance of workers to the source: <1 m
Ventilation control measures	: Room ventilation: Basic (up to 3 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented
Personal protection	: Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 80 %)

Contributing scenario controlling worker exposure for 12: Mixing operations (closed systems)

Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 8 h/day
Other operational conditions affecting worker exposure	: Operating temperature:<= 20°C Place of use: Indoor use
Technical conditions and measures at process level (source) to prevent release	: Closed process without likelihood of exposure
Ventilation control measures	: Room ventilation: Basic (up to 3 ACH)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented
---	--

Contributing scenario controlling worker exposure for 13: Equipment cleaning and maintenance

Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 4h/day
Other operational conditions affecting worker exposure	: Operating temperature:<= 20°C Place of use: Indoor use
Ventilation control measures	: Room ventilation: Basic (up to 3 ACH) Local exhaust ventilation: Yes. Ensure on-tool extraction is used. or Ensure fixed capturing hood is used. (effectiveness>= 90-95 %) Drain down and flush system prior to equipment break-in or maintenance.

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented
Personal protection	: Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Contributing scenario controlling worker exposure for 14: Storage

Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 8 h/day
Other operational conditions affecting worker exposure	: Operating temperature:<= 20°C Place of use: Indoor use Transfer rate for liquid products: 100 - 1000 L/min Distance of workers to the source: <1 m
Technical conditions and measures at process level (source) to prevent release	: Closed process without likelihood of exposure Store substance within a closed system.
Ventilation control measures	: Room ventilation: Basic (up to 3 ACH)
Conditions and measures related to personal protection, hygiene and health evaluation	
Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented
Personal protection	: Dermal protection: Chemical resistant dermal protection with basic employee training. (effectiveness >= 95 %)

Contributing scenario controlling worker exposure for 15: Bulk transfers (closed systems)

Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Physical state	: Liquid
Frequency and duration of use/exposure	: Duration of activity: <= 8 h/day
Other operational conditions affecting worker exposure	: Operating temperature:<= 20°C Place of use: Indoor use Transfer rate for liquid products: 100 - 1000 L/min Splash loading Distance of workers to the source: <1 m
Technical conditions and measures at process level (source) to prevent release	: Closed continuous process with occasional controlled exposure
Conditions and measures related to personal protection, hygiene and health evaluation	
Advice on general occupational hygiene	: Assumes a good basic standard of occupational hygiene is implemented

Section 3 - Exposure estimation and reference to its source

Website:	: Not applicable.
-----------------	-------------------

Exposure estimation and reference to its source - Environment: 1: Industrial use of processing aids in processes and products, not becoming part of articles

Exposure assessment (environment):	: Hydrocarbon Block Method (Petrorisk)
Exposure estimation and reference to its source	: ESVOC SPERC 1.1.v1

Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities

Exposure assessment (human):	: The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	: Not available.

Exposure estimation and reference to its source - Workers: 3: General exposures (closed systems)

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 4: General exposures (open systems)

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 5: Drum/batch transfers

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 6: Pouring from small containers

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 7: General exposure (open systems); With potential for aerosol generation

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 8: Phase separation

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 9: Phase separation

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 10: Ion exchange processes

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 11: Process sampling

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 12: Mixing operations (closed systems)

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 13: Equipment cleaning and maintenance

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 14: Storage

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 15: Bulk transfers (closed systems)

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environment : Not available.

Health : Not available.

Additional good practice advice beyond the REACH CSA

Environment : Not available.

Health : Not available.

NEODECANOIC ACID, PRIME