



SAFETY DATA SHEET
n-(3-(DIMETHYLAMINO)PROPYL)DOCOSANAMIDE

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

1.1. Product identifier

Product name	n-(3-(DIMETHYLAMINO)PROPYL)DOCOSANAMIDE
Product number	21953
Synonyms; trade names	AMIDET APA 22
REACH registration number	01-2120105211-81-XXXX
CAS number	60270-33-9
EC number	262-134-8

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

Identified uses	Chemical Intermediate Consumer use. Cosmetics For further information, see attached Exposure Scenario.
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1.3. Details of the supplier of the safety data sheet

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

Emergency telephone	SGS - +32 (0)3 575 55 55 (24h)
Sds No.	21953

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Not Classified
Health hazards	Eye Dam. 1 - H318
Environmental hazards	Aquatic Chronic 3 - H412

2.2. Label elements

EC number	262-134-8
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Hazard pictograms



n-(3-(DIMETHYLAMINO)PROPYL)DOCOSANAMIDE

Signal word	Danger
Hazard statements	H318 Causes serious eye damage. H412 Harmful to aquatic life with long lasting effects.
Precautionary statements	P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/ doctor. P501 Dispose of contents/ container in accordance with local regulations.

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria. The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1. Substances

Product name	n-(3-(DIMETHYLAMINO)PROPYL)DOCOSANAMIDE
REACH registration number	01-2120105211-81-XXXX
CAS number	60270-33-9
EC number	262-134-8
Ingredient notes	Acute Toxicity Estimate (oral): > 2000 mg/kg Acute Toxicity Estimate (dermal): > 2000 mg/kg
Composition comments	The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Get medical attention immediately. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If it is suspected that volatile contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. If breathing stops, provide artificial respiration. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When heated, vapours/gases hazardous to health may be formed. Development of symptoms may be delayed for 24 to 48 hours. Keep affected person under observation.
Ingestion	Get medical attention immediately. Rinse mouth thoroughly with water. Remove any dentures. Give plenty of water to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated by a physician. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place. Get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.
Skin contact	Get medical attention immediately. Wash skin thoroughly with soap and water. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated by a physician. Wash clothing and clean shoes thoroughly before reuse.

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Eye contact	Get medical attention immediately. Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Chemical burns must be treated by a physician.
Protection of first aiders	No action shall be taken without appropriate training or involving any personal risk. First aid personnel should wear appropriate protective equipment during any rescue. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves.

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

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

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

Notes for the doctor	Treat symptomatically. When heated, vapours/gases hazardous to health may be formed. Development of symptoms may be delayed for 24 to 48 hours. Keep affected person under observation.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	When heated and in case of fire, toxic vapours/gases may be formed. Harmful to aquatic life with long lasting effects. Avoid the spillage or runoff entering drains, sewers or watercourses.
Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of the following substances: Carbon. Nitrogen.

5.3. Advice for firefighters

Protective actions during firefighting	Evacuate area. No action shall be taken without appropriate training or involving any personal risk.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

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

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Move containers from spillage area. Approach the spillage from upwind. Avoid the spillage or runoff entering drains, sewers or watercourses. Avoid generation and spreading of dust. Remove spillage with vacuum cleaner or collect with a shovel and broom, or similar. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible.

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Wash after use and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene procedures should be implemented.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Avoid exposure to high temperatures or direct sunlight. Store away from incompatible materials (see Section 10). Keep away from food and drink. Store locked up. Container must be kept tightly closed when not in use. Keep containers upright. Only store in correctly labelled containers. Use appropriate containment to avoid environmental contamination. Store away from the following materials: Strong oxidising agents.

7.3. Specific end use(s)

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

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

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

DNEL Workers - Inhalation; Long term systemic effects: 2.94 mg/m³
 Workers - Dermal; Long term systemic effects: 4.17 mg/kg/day
 Consumer - Inhalation; Long term systemic effects: 0.87 mg/m³
 Consumer - Oral; Long term systemic effects: 0.5 mg/kg/day

PNEC - Fresh water; 1.16 µg/l
 - marine water; 0.116 µg/l
 - STP; 1.081 mg/l

8.2. Exposure controls

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Protective equipment



Appropriate engineering controls

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

Eye/face protection

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

Hand protection

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

Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures

When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas. Eye wash facilities and emergency shower must be available when handling this product.

Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m³. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. If ventilation is inadequate, suitable respiratory protection must be worn. EN 136/140/141/145/143/149

Environmental exposure controls

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Solid
Colour	White. to Yellowish.
Odour	Characteristic.
Odour threshold	No information available.
pH	pH (diluted solution): 9 - 11 (5%)
Melting point	79.4°C
Pour Point	No information available.
Freezing Point	79.4°C
Initial boiling point and range	> 300°C
Flash point	> 150°C Closed cup.
Evaporation rate	No information available.

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Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	Not applicable.
Other flammability	No information available.
Vapour pressure	0 kPa @ 20°C
Vapour density	No information available.
Relative density	0.947 @ 20°C
Bulk density	No information available.
Solubility(ies)	Slightly soluble in water.
Partition coefficient	log Pow: 2.85
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	< 100 cP @ 80°C
Explosive properties	No information available.
Explosive under the influence of a flame	No information available.
Oxidising properties	No information available.
<u>9.2. Other information</u>	
Other information	No information required.
Refractive index	No information available.
Particle size	No information available.
Molecular weight	No information available.
Volatility	No information available.
Saturation concentration	No information available.
Critical temperature	No information available.
Volatile organic compound	No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

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

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Under normal conditions of storage and use, no hazardous reactions will occur.
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10.4. Conditions to avoid

Conditions to avoid	No information available.
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10.5. Incompatible materials

Materials to avoid Oxidising materials.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) This information is based on test data from similar products LD₅₀ >2000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) This information is based on test data from similar products LD₅₀ >2000 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Notes (inhalation LC₅₀) No information available.

Skin corrosion/irritation

Animal data This information is based on test data from similar products Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation This information is based on test data from similar products Causes serious eye damage.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation Not sensitising. Guinea pig

Germ cell mutagenicity

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

Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility No information available.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard Not available.

Toxicokinetics

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

Inhalation

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

Ingestion

Overexposure may cause the following adverse effects: Stomach pain.

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

SECTION 12: Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects.

12.1. Toxicity

Toxicity Harmful to aquatic life with long lasting effects.

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 5.45 mg/l,
OECD 203

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 1.6 mg/l, Daphnia magna
OECD 202

Acute toxicity - aquatic plants EC₅₀, 72 hours: 1.73 mg/l,
OECD 201

12.2. Persistence and degradability

Persistence and degradability The product is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

Partition coefficient log Pow: 2.85

12.4. Mobility in soil

Mobility Slightly soluble in water.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

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

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

n-(3-(DIMETHYLAMINO)PROPYL)DOCOSANAMIDE

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

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

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78
and the IBC Code

SECTION 15: Regulatory information

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

EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). COMMISSION REGULATION (EU) 2020/878 of 18 June 2020
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15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.

Canada - DSL/NDSL

All the ingredients are listed or exempt.
NDSL
None of the ingredients are listed or exempt.
DSL

Australia - AICS

All the ingredients are listed or exempt.

Japan - ENCS

All the ingredients are listed or exempt.

China - IECSC

All the ingredients are listed or exempt.

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Philippines – PICCS

All the ingredients are listed or exempt.

New Zealand - NZIOC

All the ingredients are listed or exempt.

Taiwan - TCSI

All the ingredients are listed or exempt.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
 CAS: Chemical Abstracts Service.
 DNEL: Derived No Effect Level.
 IATA: International Air Transport Association.
 IMDG: International Maritime Dangerous Goods.
 Kow: Octanol-water partition coefficient.
 LC₅₀: Lethal Concentration to 50 % of a test population.
 LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
 PBT: Persistent, Bioaccumulative and Toxic substance.
 PNEC: Predicted No Effect Concentration.
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
 vPvB: Very Persistent and Very Bioaccumulative.
 IARC: International Agency for Research on Cancer.
 MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
 cATpE: Converted Acute Toxicity Point Estimate.
 BCF: Bioconcentration Factor.
 BOD: Biochemical Oxygen Demand.
 EC₅₀: 50% of maximal Effective Concentration.
 LOAEC: Lowest Observed Adverse Effect Concentration.
 LOAEL: Lowest Observed Adverse Effect Level.
 NOAEC: No Observed Adverse Effect Concentration.
 NOAEL: No Observed Adverse Effect Level.
 NOEC: No Observed Effect Concentration.
 LOEC: Lowest Observed Effect Concentration.
 DMEL: Derived Minimal Effect Level.
 EL50: Exposure Limit 50
 hPa: Hectopascal
 LL50: Lethal Loading fifty
 OECD: Organisation for Economic Co-operation and Development
 POW: Octanol-water partition coefficient
 SCBA: self-contained breathing apparatus
 STP: Sewage Treatment Plant
 VOC: Volatile Organic Compounds

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
 Aquatic Acute = Hazardous to the aquatic environment (acute)
 Aquatic Chronic = Hazardous to the aquatic environment (chronic)

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Key literature references and sources for data Supplier's information.

Classification procedures according to Regulation (EC) 1272/2008 Eye Dam. 1 - H318: Expert judgement. Aquatic Chronic 3 - H412: Expert judgement.

Revision comments NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date 30/05/2023

Version number 8.000

Supersedes date 05/06/2019

SDS number 21953

SDS status Approved.

Hazard statements in full H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.

Signature Lisa Bland

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



Exposure scenario Manufacture of chemicals

Identification

Product name	N-[3-(dimethylamino)propyl]docosanamide
REACH registration number	01-2120105211-81-XXXX
CAS number	60270-33-9
EC number	262-134-8
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Manufacture of chemicals
Main sector	SU3 Industrial uses

Environment

Environmental release category	ERC1 Manufacture of the substance
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Worker

Process category	PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC14 Tableting, compression, extrusion, pelletisation, granulation PROC15 Use as laboratory reagent.
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2. Conditions of use affecting exposure (Industrial - Environment 1)

Amounts used

Daily amount per site: 6.6 tonnes
Annual site tonnage: 99 tonnes

Other given operational conditions affecting environmental exposure

Emission factor - air	Release fraction to air from process (initial release prior to RMM): 0.011%
Emission factor - water	Release fraction to wastewater from process (initial release prior to RMM): 0.011%

Manufacture of chemicals

Emission factor - soil Release fraction to soil from process (initial release prior to RMM): 0.01%

Environmental factors not influenced by risk management measures

Dilution Local freshwater dilution factor: 10
Local marine water dilution factor: 100
Receiving surface water flow: 216000 m³/day

Risk management measures

STP type Municipal STP.

STP details Assumed domestic sewage treatment plant flow: 11111 m³/day

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

Product characteristics

Concentration details Covers concentrations up to 100 %.

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).
PROC4 Chemical production where opportunity for exposure arises
PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC15 Use as laboratory reagent.
Covers daily exposure up to 4hours

Human factors not influenced by risk management

Potentially exposed body parts PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC15 Use as laboratory reagent. Palm of one hand. Covers skin contact area up to 240 cm².
PROC4 Chemical production where opportunity for exposure arises PROC14 Tableting, compression, extrusion, pelletisation, granulation Palm of both hands. Covers skin contact area up to 480 cm².
PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities Both hands. Covers skin contact area up to 960 cm².

Other given operational conditions affecting workers exposure

Setting Indoor.

Temperature PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC15 Use as laboratory reagent. Assumes activities and processes are carried out at a temperature of 170°C.
PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities Assumes activities and processes are carried out at a temperature of 100°C.
PROC14 Tableting, compression, extrusion, pelletisation, granulation Assumes activities and processes are carried out at a temperature of 85°C.

Manufacture of chemicals

Ventilation rate

PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC15 Use as laboratory reagent. Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. Ventilation rate 5 - 10 air changes per hour

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC14 Tableting, compression, extrusion, pelletisation, granulation Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

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

Technical protective measures PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC15 Use as laboratory reagent. Local exhaust ventilation - efficiency of at least [%]: 90

Risk management measures

Wear suitable gloves (tested to EN374) and eye protection.
PROC4 Chemical production where opportunity for exposure arises
Wear a respirator providing a minimum efficiency of (%): 90

3. Exposure estimation (Environment 1)

Assessment method Used EUSES model.

3. Exposure estimation (Health 1)

Assessment method Used ECETOC TRA model.

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

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures.



Exposure scenario Formulation

Identification

Product name	N-[3-(dimethylamino)propyl]docosanamide
REACH registration number	01-2120105211-81-XXXX
CAS number	60270-33-9
EC number	262-134-8
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Formulation
Main sector	SU3 Industrial uses
Sector of use	SU10 Formulation [mixing] of preparations and/or re-packaging

Environment

Environmental release category	ERC2 Formulation into mixture
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Worker

Process category	PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC5 Mixing or blending in batch processes PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing) PROC14 Tableting, compression, extrusion, pelletisation, granulation PROC15 Use as laboratory reagent.
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2. Conditions of use affecting exposure (Industrial - Environment 1)

Amounts used

Daily amount per site: 9.9 tonnes
Annual site tonnage: 99 tonnes

Other given operational conditions affecting environmental exposure

Formulation

Emission factor - air	Release fraction to air from process (initial release prior to RMM): 0.003%
Emission factor - water	Release fraction to wastewater from process (initial release prior to RMM): 0.002%
Emission factor - soil	Release fraction to soil from process (initial release prior to RMM): 0.01%

Environmental factors not influenced by risk management measures

Dilution	Local freshwater dilution factor: 10 Local marine water dilution factor: 100 Receiving surface water flow: 18000 m ³ /day
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Risk management measures

STP type	Municipal STP.
STP details	Assumed domestic sewage treatment plant flow: 11111 m ³ /day

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

Product characteristics

Concentration details	Concentration of substance in product: 25%
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Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).
PROC5 Mixing or blending in batch processes
PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
Covers daily exposure up to 4hours

Human factors not influenced by risk management

Potentially exposed body parts	PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC15 Use as laboratory reagent. Palm of one hand. Covers skin contact area up to 240 cm ² . PROC4 Chemical production where opportunity for exposure arises PROC5 Mixing or blending in batch processes PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing) PROC14 Tableting, compression, extrusion, pelletisation, granulation Palm of both hands. Covers skin contact area up to 480 cm ² . PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities Both hands. Covers skin contact area up to 960 cm ² .
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Other given operational conditions affecting workers exposure

Setting	Indoor.
Temperature	PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities Assumes activities and processes are carried out at a temperature of 40°C. PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC5 Mixing or blending in batch processes PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing) PROC14 Tableting, compression, extrusion, pelletisation, granulation PROC15 Use as laboratory reagent. Assumes activities and processes are carried out at a temperature of 80°C.

Formulation

Ventilation rate PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities PROC14 Tableting, compression, extrusion, pelletisation, granulation Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

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

Technical protective measures PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition PROC4 Chemical production where opportunity for exposure arises PROC15 Use as laboratory reagent. Local exhaust ventilation - efficiency of at least [%]: 90

Risk management measures

Wear suitable gloves (tested to EN374) and eye protection.
PROC4 Chemical production where opportunity for exposure arises
Wear a respirator providing a minimum efficiency of (%): 90

3. Exposure estimation (Environment 1)

Assessment method Used EUSES model.

3. Exposure estimation (Health 1)

Assessment method Used ECETOC TRA model.

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

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. Guidance is based on assumed operating conditions which may not be applicable to all sites, thus, scaling may be necessary to define appropriate site-specific risk management measures.



Exposure scenario Consumer Use: Cosmetics

Identification

Product name	N-[3-(dimethylamino)propyl]docosanamide
REACH registration number	01-2120105211-81-XXXX
CAS number	60270-33-9
EC number	262-134-8
Supplier	Univar Solutions UK Ltd Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 SDS.EMEA@univarsolutions.com

1. Title of exposure scenario

Main title	Consumer Use: Cosmetics
Product category	PC39 Cosmetics, personal care.
Main sector	SU21 Consumer uses

Environment

Environmental release category	ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)
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2. Conditions of use affecting exposure (Non-industrial - Environment 1)

Amounts used

Daily amount per site: 0.00005445 tonnes

Other given operational conditions affecting environmental exposure

Emission factor - air	Release fraction to air from wide dispersive use (regional only): 100%
Emission factor - water	Release fraction to wastewater from process (initial release prior to RMM): 100%
Emission factor - soil	Release fraction to soil from process (initial release prior to RMM): 20%

Environmental factors not influenced by risk management measures

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

STP type	Municipal STP.
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Consumer Use: Cosmetics

STP details

Assumed domestic sewage treatment plant flow: 2000 m³/day

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

Control of Non-industrial exposure

In accordance to the Article 14 (5b) of the REACH Regulation (EC) No 1907/2006, exposure estimation and risk characterisation for human health does not need to be performed for end uses in cosmetic products within the scope of Directive 76/768/EEC.

3. Exposure estimation (Environment 1)

Assessment method

Used EUSES model.

Predicted exposures are not expected to exceed the applicable exposure limits (given in Section 8 of the SDS) when the operational conditions/risk management measures given in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

3. Exposure estimation (Health 1)

In accordance to the Article 14 (5b) of the REACH Regulation (EC) No 1907/2006, exposure estimation and risk characterisation for human health does not need to be performed for end uses in cosmetic products within the scope of Directive 76/768/EEC.