

Safety Data Sheet

#90027931 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

PRODUCT	CAS NUMBER	FORMULA	VERSION	REVISION DATE
N,N-Dimethyldodecylamine N-oxide 30% in Water	1643-20-5	C14H31NO	10	15 Sep 2026

SECTION 1

Identification

1.1 Product identifier

Product name	N,N-Dimethyldodecylamine N-oxide 30% in Water
CAS number	1643-20-5
EC / EINECS number	216-700-6
UFI code	RE7Y-JE45-NC8A-5X8K
Chemical formula	C14H31NO
Molecular weight	229.40
SMILES	<chem>O=N(C)(C)CCCCCCCCCCCC</chem>

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

For research use, laboratory use and manufacture of chemicals. Not for human or veterinary use

1.3 Details of the supplier of the safety data sheet

Molekula Limited
1 Millennium Way, Newton Aycliffe
Durham, DL5 6JW, United Kingdom
info@molekula.com · +44 (0) 3302 000333

1.4 Emergency telephone number

0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification

2.1 Classification of the substance or mixture

Skin Irrit. 2; H315
Eye Dam. 1; H318
Aquatic Chronic 1; H410

2.2 Label elements



DANGER

CODE	HAZARD STATEMENT
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H315	Causes skin irritation
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H318	Causes serious eye damage
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H410	Very toxic to aquatic life with long lasting effects
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CODE	PRECAUTIONARY STATEMENT
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P273	Avoid release to the environment
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P280	Wear protective gloves/protective clothing/eye protection/face protection
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P302+P352	IF ON SKIN: Wash with soap and water
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P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
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P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do, continue rinsing
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P391	Collect spillage
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2.3 Other hazards

Does not contain components considered to have endocrine-disrupting properties. Does not meet PBT or vPvB criteria under REACH Annex XIII.

SECTION 3

Composition / information on ingredients

3.1 Substances

Name	N,N-Dimethyldodecylamine N-oxide 30% in Water
CAS number	1643-20-5
EC number	216-700-6
Concentration / purity	c. 30% N,N-Dimethyldodecylamine N-oxide (CAS: 1643-20-5)- H315, H318, H410
Classification according to Regulation (EC) No 1272/2008	Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 1; H410
Hazard statements	H315, H318, H410
Acute toxicity estimate (ATE)	No data available
Impurities / stabilising additives	None

SECTION 4

First-aid measures

4.1 Description of first aid measures

Inhalation	Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration.
Skin contact	Wash with plenty of water. Continue to rinse for at least 15 minutes and seek medical attention.
Eye contact	Remove contact lenses if present. Rinse eyes with water. Continue to rinse for at least 15 minutes and seek medical attention.
Ingestion	Rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel. First aiders/ medical personnel need to protect themselves.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5

Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given.
Unsuitable extinguishing media	None known

5.2 Special hazards arising from the substance or mixture

Carbon oxides
Nitrogen oxides (NO_x)
Combustible.
Vapours are heavier than air and may spread along floors.
Forms explosive mixtures with air on intense heating.
Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6

Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing dust/fume/gas/mist/vapours/spray. Provide adequate ventilation. For personal protection, see section 8.

6.2 Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3 Methods and material for containment and cleaning up

Absorb spillage with a suitable absorbent material.

6.4 Reference to other sections

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

7.1 Precautions for safe handling

Observe good chemical hygiene practices. Keep away from food, drink and animal feeding stuffs. Wash contaminated skin thoroughly after handling. Do not eat, drink or smoke when using this product. Remove contaminated clothing and laundry thoroughly before re-use.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature 2 to 8 °C

Conditions for safe storage (incompatibilities) Air sensitive. Store under inert gas.

7.3 Specific end use(s)

See Section 1.2.

SECTION 8

Exposure controls / personal protection

8.1 Control parameters

Occupational exposure limits (OEL / WEL) *Not applicable*

DNEC/PNEC data Chronic effects systemic (Dermal): 11 mg/kg bw/day
Chronic effects systemic (Inhalation): 6.2 mg/m3

8.2 Exposure controls

Eye / face protection	Face shield Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022.
Skin / hand protection	Gloves: Nitrile Rubber, 0.11mm (480 mins).
Respiratory protection	Dust mask (FFP2/FFP3) Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387.
Other protection	<i>No data available</i>
Environmental exposure controls	<i>No data available</i>

SECTION 9

Physical & chemical properties

9.1 Information on basic physical and chemical properties

Appearance / physical state	Liquid DERIVED FROM: LITERATURE
Colour	Colourless DERIVED FROM: LITERATURE
Odour	Odourless DERIVED FROM: LITERATURE
Melting / freezing point	<i>Not applicable</i>
Boiling point	<i>Not applicable</i>
Flammability	<i>No data available</i>
Lower and upper explosion limit	<i>No data available</i>
Flash point	112 °C DERIVED FROM: LITERATURE
Auto-ignition temperature	<i>Not applicable</i>
Decomposition temperature	<i>No data available</i>
pH	<i>Not applicable</i>
Acidity	Neutral DERIVED FROM: LITERATURE
Kinematic viscosity	<i>No data available</i>
Solubility	Soluble in water DERIVED FROM: LITERATURE
Partition coefficient n-octanol/water (log value)	<i>Not applicable</i>
Vapour pressure	<i>Not applicable</i>

Density (g/mL)	0.969 g/mL DERIVED FROM: LITERATURE
Relative vapour density	<i>No data available</i>
Particle characteristics	<i>No data available</i>

9.2 Other information

No data available

SECTION 10

Stability & reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under the prescribed storage conditions

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Air sensitive. Heat, sparks, flames.

10.5 Incompatible materials

Strong oxidising agents

10.6 Hazardous decomposition products

See section 5

SECTION 11

Toxicological information

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

Acute toxicity (LD50 / LC50)	Information on hazard classes as defined in Regulation (EC) No 1272/2008 N,N-Dimethyldodecylamine N-oxide: LD50 Oral - Rat - male and female - 1,064 mg/kg Ref: External SDS
Skin corrosion / irritation	Causes skin irritation
Eye corrosion / irritation	Causes serious eye damage
Respiratory / skin sensitisation	Not classified
Carcinogenicity	Not classified
Mutagenicity	Not classified
Reproductive toxicity	Not classified
STOT (single / repeated exposure)	Not classified

Aspiration hazard

Not classified

11.2 Information on other hazards

Not classified

SECTION 12

Ecological information

12.1 Toxicity

N,N-Dimethyldodecylamine N-oxide:

semi-static test LC50 - Danio rerio (zebra fish) - 31.8 mg/l - 96 h

static test EC50 - Daphnia magna (Water flea) - 3.9 mg/l - 48 h

static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 0.2 mg/l - 72 h

flow-through test LC50 - Pimephales promelas (fathead minnow) - 0.87 mg/l - 120 d

flow-through test NOEC - Daphnia magna (Water flea) - 0.7 mg/l - 21 d

12.2 Persistence and degradability

Not applicable

12.3 Bioaccumulative potential

Not applicable

12.4 Mobility in soil

Not applicable

12.5 Results of PBT and vPvB assessment

Not applicable

12.6 Endocrine disrupting properties

See Section 11.2.

12.7 Other adverse effects

No data available

SECTION 13

Disposal considerations

13.1 Waste treatment methods

Dispose of in accordance with local/national regulations

SECTION 14

Transport information

14.1 UN number or ID number

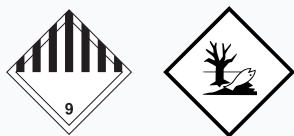
UN3082

14.2 UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3 Transport hazard class(es)

9



14.4 Packing group

III

14.5 Environmental hazards

Marine pollutant

14.6 Special precautions for user

Special precautions for user Handle in accordance with good industrial hygiene and safety practice

Transport category 3

Tunnel code -

Packing instruction (ADR) P001

Packing instruction (IMDG) P001

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15

Regulatory information

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

Substance-specific regulations (e.g. licences) *No data available*

REACH code Y110

ECHA notification *Not applicable*

15.2 Chemical safety assessment

Not applicable

SECTION 16

Other information

Revision notes / other information

Replaces previous SDS ver.1. Published 23rd June
Hazard classification and labelling according to Regulation (EC) 1272/2008
All eye/face protection should comply with EN ISO 16321-1:2022
Respiratory equipment: Reusable air-purifying respirator (APR)
Filter Type: ABEK
Standard: EN 14387
National Regulations:
-Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances
Other regulations, limitations and legal regulations:
-Directive 94/33/EC- The protection of young people at work.

This Safety Data Sheet was generated automatically from the data Molekula holds against this product, in the 16-section GHS/CLP format. Fields shown as "No data available" carry no recorded value; fields shown as "Not applicable" were assessed as not relevant to this substance. For queries, contact Molekula at info@molekula.com.