

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Supersedes date 28-Jul-2015

Revision date 07-Jul-2026

Revision Number 2

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

1.1. Product identifier

Product Code(s) 10434

Safety data sheet number 10434

Product Name MONOMETHYLAMINE SOLUTION

Synonyms MONOMETHYLAMINE 40% SOLUTION

Pure substance/mixture Mixture

Contains MONOMETHYLAMINE... %

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

Recommended use Industrial use
Chemical intermediate

1.3. Details of the supplier of the safety data sheet

Supplier

Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
GBR

For further information, please contact

E-mail address SDS.EMEA@univarsolutions.com

Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Flammable liquids	Category 2 - (H225)
Acute toxicity - Oral	Category 4 - (H302)
Acute toxicity - Inhalation (Gases)	Category 3 - (H331)
Skin corrosion/irritation	Category 1 Sub-category B - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)
Specific target organ toxicity — single exposure	Category 3 - (H335)

Category 3 Respiratory irritation

2.2. Label elements

Contains MONOMETHYLAMINE... %

**Signal word**

Danger

Hazard statements

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

H331 - Toxic if inhaled

H335 - May cause respiratory irritation

H225 - Highly flammable liquid and vapour

EUH071 - Corrosive to the respiratory tract

Precautionary statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P260 - Do not breathe dust/fume/gas/mist/vapours/spray

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves/protective clothing and eye/face protection

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]

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 or doctor

P501 - Dispose of contents/container to hazardous or special waste collection point

Unknown aquatic toxicity

Contains 0 % of components with unknown hazards to the aquatic environment.

Additional information

This product requires child resistant fastenings if supplied to the general public. This product requires tactile warnings if supplied to the general public.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Not applicable

3.2 Mixtures

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)

MONOMETHYLAMINE... % 74-89-5	> 40 - < 43 %	200-820-0 (612-001-00-9)	-	Flam. Liq. 1 (H224) Acute Tox. 3 (H331) Acute Tox. 4 (H302) Skin Corr. 1B (H314) Eye Dam. 1 (H318) STOT SE 3 (H335) (EUH071)	Eye Dam. 1 :: C>=5% Eye Irrit. 2 :: 0.5%<=C<5% Skin Irrit. 2 :: C>=5% STOT SE 3 :: C>=5%	-	-
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Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (UK REACH Article 59)

SECTION 4: First aid measures**4.1. Description of first aid measures**

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Inhalation	Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical attention. Immediate medical attention is required.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical attention.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention. Drink 200-300 ml of water.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Do not breathe vapour or mist.

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

Symptoms	Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.
Inhalation	Coughing and/or wheezing. Difficulty in breathing. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Eyes	Burning sensation. May cause permanent damage if eye is not immediately irrigated.
Dermal	Burning sensation. Causes severe burns.
Ingestion	Can burn mouth, throat, and stomach

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

Note to doctors

Product is a corrosive material. Use of gastric lavage or emesis is contra-indicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO₂). Water spray. Alcohol resistant foam.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapours. Vapours may form explosive mixtures with air.

Hazardous combustion products Carbon oxides. Nitrogen oxides (NO_x).

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Collect contaminated fire extinguishing water separately. Do not allow it to enter drains or surface water. Cool containers with flooding quantities of water until well after fire is out.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Attention! Corrosive material. Do not breathe vapour or mist.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Should not be released into the environment. Do not allow to enter into soil/subsoil.

6.3. Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand

or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers. Use spark-proof tools and explosion-proof equipment.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Use personal protection equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not breathe vapour or mist.

General hygiene considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Do not breathe vapour or mist. Avoid contact with eyes. Ensure that eyewash stations and safety showers are close to the workstation location.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store away from other materials. Avoid contact with: Acids. Protect from direct sunlight. Keep at temperatures between 0 and 40 °C. See section 10 for more information.

7.3. Specific end use(s)

Specific use(s)

See section 1 for more information.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
MONOMETHYLAMINE... % 74-89-5		0.1 mg/kg bw/day [4] [6]	0.72 mg/m ³ [4] [6] 0.427 mg/m ³ [5] [6]

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.

Derived No Effect Level (DNEL) - General Public No information available.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
MONOMETHYLAMINE... % 74-89-5	0.016 mg/L	0.016 mg/L	0.0016 mg/L		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
MONOMETHYLAMINE... % 74-89-5	0.776 mg/kg sediment dw	0.0776 mg/kg sediment dw	0.1263 mg/L	0.126 mg/kg soil dw	

8.2. Exposure controls

Engineering controls

Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. Use non sparking handtools and explosion-proof electric equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection

Tight sealing safety goggles. Face protection shield. Use eye protection according to EN ISO 16321-1.

Hand protection

Wear suitable gloves. Impervious gloves. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
	Butyl rubber	0.7 mm	>480 minutes
	Polyvinyl chloride (PVC)	0.7 mm	>480 minutes
	Nitrile rubber	0.4 mm	>480 minutes
	Fluoroelastomer	0.7 mm	>480 minutes

Skin and body protection	Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.
Respiratory protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. An approved organic vapour respirator/supplied air or self-contained breathing apparatus must be used when vapour concentration exceeds applicable exposure limits.
General hygiene considerations	Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Do not breathe vapour or mist. Avoid contact with eyes. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Colour	Colourless
Odour	Amine.
Odour threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	-40 °C	No information available.
Initial boiling point and boiling range	45.4 °C	No information available.
Flammability		No information available.
Flammability Limit in Air		No information available.
Upper flammability or explosive limits	26.4 %(V) (13.7°C)	
Lower flammability or explosive limits	5.2 %(V) (-16.2 °C)	
Flash point	-12.5 °C	No information available.
Autoignition temperature	425 °C	No information available.
Decomposition temperature		No information available.
pH	14.3	No information available.
pH (as aqueous solution)		No information available.
Kinematic viscosity		No information available.
Dynamic viscosity		No information available.
Water solubility	Soluble in water	No information available.
Solubility(ies)		No information available.
Partition coefficient	Log Kow: -0.713	No information available.
Vapour pressure	386 hPa (20 °C) 1440 hPa (55 °C)	No information available.
Relative density	1.07 @ 20 °C	No information available.
Bulk density		No information available.
Liquid Density	No information available	No information available.
Relative vapour density		No information available.
Particle characteristics		No information available.
Particle Size	No information available	
Particle Size Distribution	No information available	
Explosive properties	Not considered to be explosive.	
Oxidising properties	No information available	

9.2. Other information

SECTION 10: Stability and reactivity**10.1. Reactivity**

Reactivity Stable under recommended storage conditions.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Highly flammable liquid and vapour. Vapours may form explosive mixtures with air. Exothermic reaction with acids.

10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks. static discharge (electrostatic discharge).

10.5. Incompatible materials

Incompatible materials Strong acids. Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon oxides. Nitrogen oxides (NOx).

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Information on likely routes of exposure****Product Information**

Inhalation	Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. Toxic by inhalation. May cause irritation of respiratory tract.
Eye contact	Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes.
Skin contact	Corrosive. (based on components). Causes burns.
Ingestion	Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. Burning. May cause blindness. Coughing and/ or wheezing. Difficulty in breathing.

Acute toxicity**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 1,250.00 mg/kg ppm

ATEmix (inhalation-dust/mist) 3.75 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
MONOMETHYLAMINE... %	= 100 mg/kg (Rat)	-	2.1 - 2.9 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes severe skin burns and eye damage.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye damage. Causes burns.

Respiratory or skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity Based on available data the classification criteria are not met.

Carcinogenicity No information available.

Reproductive toxicity Based on available data the classification criteria are not met.

STOT - single exposure May cause respiratory irritation.

STOT - repeated exposure No information available.

Aspiration hazard Based on available data the classification criteria are not met.

Other adverse effects No information available.

SECTION 12: Ecological information**12.1. Toxicity**

Ecotoxicity The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging

effect on the environment.

Unknown aquatic toxicity

Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
MONOMETHYLAMINE... %	EC50: > 281.8 mg/l (72 h, <i>Desmodesmus subspicatus</i>)	LC50: 970 mg/l (48 h, <i>Leuciscus idus</i>)	-	EC50: =163mg/L (48h, <i>Daphnia magna</i>) EC50: 147 - 180mg/L (48h, <i>Daphnia magna</i>)

12.2. Persistence and degradability**Persistence and degradability**

Readily biodegradable.

12.3. Bioaccumulative potential**Bioaccumulation**

Not likely to bioaccumulate.

Component Information

Chemical name	Partition coefficient
MONOMETHYLAMINE... %	-0.713

12.4. Mobility in soil**Mobility in soil**

No information available.

12.5. Results of PBT and vPvB assessment**PBT and vPvB assessment**

The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
MONOMETHYLAMINE... %	The substance is not PBT / vPvB

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Waste from residues/unused products**

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

Contaminated packaging

Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

SECTION 14: Transport information**IATA**

14.1 UN number or ID number	UN1235
14.2 UN proper shipping name	METHYLAMINE, AQUEOUS SOLUTION
14.3 Transport hazard class(es)	3
Subsidiary hazard class	8
14.4 Packing group	II
14.5 Environmental hazards	No

14.6 Special precautions for user

Special Provisions	None
ERG Code	3CH

IMDG

14.1 UN number or ID number	UN1235
14.2 UN proper shipping name	METHYLAMINE, AQUEOUS SOLUTION
14.3 Transport hazard class(es)	3
Subsidiary hazard class	8
14.4 Packing group	II
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None
EmS-No	F-E, S-C
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	UN1235
14.2 UN proper shipping name	METHYLAMINE, AQUEOUS SOLUTION
14.3 Transport hazard class(es)	3
Subsidiary hazard class	8
14.4 Packing group	II
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None
Classification code	FC

ADR

14.1 UN number or ID number	UN1235
14.2 UN proper shipping name	METHYLAMINE, AQUEOUS SOLUTION
14.3 Transport hazard class(es)	3
Subsidiary hazard class	8
14.4 Packing group	II
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None
Classification code	FC
Tunnel restriction code	(D/E)

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Authorisations and/or restrictions on use:**

This product contains one or more substances subject to restriction (UK REACH - Annex XVII).

This product does not contain substances subject to authorisation (UK REACH - Annex XIV).

Product restricted per REACH Annex XVII: 3

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Dangerous substance category per COMAH Regulations 2015 (as amended)

H2 - ACUTE TOXIC

P5b - FLAMMABLE LIQUIDS

Named dangerous substances per COMAH Regulations 2015 (as amended)

Not applicable

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)

Not applicable

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECI	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

TSCA	- United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL	- Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS	- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS	- Japan Existing and New Chemical Substances
IECSC	- China Inventory of Existing Chemical Substances
KECL	- Korean Existing and Evaluated Chemical Substances
PICCS	- Philippines Inventory of Chemicals and Chemical Substances
AIIC	- Australian Inventory of Industrial Chemicals
NZIoC	- New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

EUH071 - Corrosive to the respiratory tract
H224 - Extremely flammable liquid and vapour
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H331 - Toxic if inhaled
H335 - May cause respiratory irritation

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		

Revision Note **SDS sections updated 1 2 3 4 8 9 11 12 15 16**

Classification procedure

Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
 European Chemicals Agency (ECHA) (ECHA_API)
 Environmental Protection Agency
 Acute Exposure Guideline Level(s) (AEGL(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 National Institute of Technology and Evaluation (NITE)
 Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 U.S. National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
 Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
 Organisation for Economic Co-operation and Development Screening Information Data Set
 World Health Organization

Prepared By K Winter

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**This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)
 Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical**

agents at work

Disclaimer

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

End of Safety Data Sheet