

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

**1.1. Product identifier**

Product Name	<b>MEK – Methyl Ethyl Ketone</b>
UK REACH registration number	01-1376353405-7-XXXX
Index No	606-002-00-3
EC Number	201-159-0
CAS No	78-93-3
Synonyms	METHYL ETHYL KETONE, MEK, Ethyl methyl ketone, BUTAN-2-ONE, MS-3, METHYL ETHYL KETONE SHL, METHYL ETHYL KETONE TRBG, METHYL ETHYL KETONE SSL
Pure substance/mixture	Substance
Contains BUTANONE	
Molecular weight	72

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

Recommended use	Industrial use Solvent Chemical intermediate Cleaning agent Coatings Lubricant Binding agent Metal working fluids / rolling oils, Laboratory chemicals For further information, see attached Exposure Scenario
-----------------	---

**1.3. Details of the supplier of the safety data sheet**

Supplier	IBS Marine Supplies Ltd Unit 5 7 Airfield Road Christchurch Dorset BH23 3TQ United Kingdom
----------	--

**1.4. Emergency telephone number**

Emergency Telephone	+44 1621 744250 – Open 09.00 to 17.00 GMT
---------------------	---

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

<b>Flammable liquids</b>	Category 2 - (H225)
<b>Serious eye damage/eye irritation</b>	Category 2 - (H319)
<b>Specific target organ toxicity — single exposure</b>	Category 3 - (H336)
Category 3 Narcotic effects	

## 2.2. Label elements

Contains BUTANONE



### Signal word

Danger

### Hazard statements

H319 - Causes serious eye irritation  
H336 - May cause drowsiness or dizziness  
H225 - Highly flammable liquid and vapour  
EUH066 - Repeated exposure may cause skin dryness or cracking

### Precautionary statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray  
P312 - Call a POISON CENTER or doctor if you feel unwell  
P370 + P378 - In case of fire: Use dry chemical, CO<sub>2</sub>, water spray or alcohol-resistant foam to extinguish  
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed  
P501 - Dispose of contents/ container to an approved waste disposal plant

### Additional information

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

## 2.3. Other hazards

Vapours can form explosive mixtures with air. Vapours are heavier than air and may travel along the floor and in the bottom of containers. Vapours may be ignited by a spark, a hot surface or an ember.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Chemical name	Weight-%	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)
BUTANONE 78-93-3	>= 90 - <= 100 %	201-159-0 (606-002-00-3)	01-1376353405-7-XXXX	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) STOT SE 3 (H336) (EUH066)	-	-	-

### Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration >= 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.

#### Inhalation

Remove to fresh air. IF exposed or concerned: Get medical advice/attention. If breathing is difficult, (trained personnel should) give oxygen.

#### 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 medical attention if irritation develops and persists.

<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
<b>Ingestion</b>	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a doctor.
<b>Self-protection of the first aider</b>	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.

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

<b>Symptoms</b>	May cause redness and tearing of the eyes. Burning sensation. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
<b>Inhalation</b>	Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
<b>Eyes</b>	Burning sensation. May cause redness and tearing of the eyes.
<b>Dermal</b>	Repeated exposure may cause skin dryness or cracking.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea

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

<b>Note to doctors</b>	Treat symptomatically.
------------------------	------------------------

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

<b>Suitable Extinguishing Media</b>	Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Water spray. Alcohol resistant foam.
<b>Large Fire</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.

#### **5.2. Special hazards arising from the substance or mixture**

<b>Specific hazards arising from the chemical</b>	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. Vapours can form explosive mixtures with air. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas.
<b>Hazardous combustion products</b>	Carbon oxides.

#### **5.3. Advice for firefighters**

<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
---	--

### **SECTION 6: Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	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.
<b>Other information</b>	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

#### **6.2. Environmental precautions**

<b>Environmental precautions</b>	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.
----------------------------------	--

### 6.3. Methods and material for containment and cleaning up

<b>Methods for containment</b>	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.
<b>Methods for cleaning up</b>	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.
<b>Prevention of secondary hazards</b>	Clean contaminated objects and areas thoroughly observing environmental regulations.

### 6.4. Reference to other sections

<b>Reference to other sections</b>	See section 8 for more information. See section 13 for more information.
------------------------------------	--

## **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

<b>Advice on safe handling</b>	Use personal protection equipment. Avoid breathing vapours or mists. 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 with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment.
<b>General hygiene considerations</b>	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. Ensure that eyewash stations and safety showers are close to the workstation location.

### 7.2. Conditions for safe storage, including any incompatibilities

<b>Storage Conditions</b>	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. Protect from direct sunlight.
---------------------------	--

### 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**

Chemical name	United Kingdom
BUTANONE 78-93-3	TWA: 200 ppm TWA: 600 mg/m <sup>3</sup> STEL: 300 ppm STEL: 899 mg/m <sup>3</sup> Sk* STEL: 900 mg/m <sup>3</sup>

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

Chemical name	United Kingdom
BUTANONE 78-93-3	70 µmol/L- urine (Butan-2-one) - post shift

**Derived No Effect Level (DNEL) - Workers**

Chemical name	Oral	Dermal	Inhalation
BUTANONE 78-93-3		1161 mg/kg [4] [6]	600 mg/m <sup>3</sup> [4] [6]

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

#### Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
BUTANONE 78-93-3	31 mg/kg [4] [6]	412 mg/kg [4] [6]	106 mg/m <sup>3</sup> [4] [6]

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

#### Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
BUTANONE 78-93-3	55.8 mg/l	55.8 mg/l	55.8 mg/l		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
BUTANONE 78-93-3	284.7 mg/kg	284.7 mg/kg	709 mg/l	22.5 mg/kg	

## 8.2. Exposure controls

### Engineering controls

Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protective equipment

#### Eye/face protection

Tight sealing safety goggles. Use eye protection according to EN 166.

#### 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	0.5 mm	>=60 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. Gas filter, type A.

### 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. 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	Characteristic.
Odour threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point	-86 °C	No information available.
Initial boiling point and boiling range	79 - 80 °C	No information available.
Flammability		No information available.
Flammability Limit in Air		No information available.
Upper flammability or explosive limits	11.5 %(V)	

Lower flammability or explosive limits	1.5 %(V)	
Flash point	-6 - -9 °C	No information available.
Autoignition temperature	> 400 °C	No information available.
Decomposition temperature		No information available.
pH		No information available.
pH (as aqueous solution)		No information available.
Kinematic viscosity		No information available.
Dynamic viscosity	0.4 cSt @ 20°C	No information available.
Water solubility	Soluble in water 270 g/l @ 20 °C	No information available.
Solubility(ies)		No information available.
Partition coefficient	log Pow: 0.3	No information available.
Vapour pressure	126 hPa @ 25°C	No information available.
Relative density	0.804 - 0.806 @ 20°C	No information available.
Bulk density	804 - 806 kg/m <sup>3</sup>	No information available.
Liquid Density	No information available	No information available.
Relative vapour density	>1	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	Does not meet the criteria for classification as oxidising	

## 9.2. Other information

Molecular weight 72 Evaporation rate 3.3 (diethyl ether=1)

## **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 can form explosive mixtures with air. May form explosive peroxides.

### 10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks. static discharge (electrostatic discharge). Protect from direct sunlight.

### 10.5. Incompatible materials

Incompatible materials Strong oxidising agents.

### 10.6. Hazardous decomposition products

Hazardous decomposition products Carbon oxides.

## **SECTION 11: Toxicological information**

### 11.1. Information on toxicological effects

#### Information on likely routes of exposure

#### Product Information

**Inhalation** Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. May cause drowsiness or dizziness.

**Eye contact** Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.

**Skin contact** Specific test data for the substance or mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation.

**Ingestion**

Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

**Symptoms related to the physical, chemical and toxicological characteristics****Symptoms**

May cause redness and tearing of the eyes. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

**Acute toxicity****Numerical measures of toxicity****Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
BUTANONE	2657 - 5554 mg/kg ( Rat )	> 5000 mg/kg (Rabbit)	= 34.5 mg/l ( Rat ) 4h

**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Skin corrosion/irritation**

May cause skin irritation. Repeated exposure may cause skin dryness or cracking.

## BUTANONE (78-93-3)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Brief contact is essentially non-irritating to skin.

**Serious eye damage/eye irritation**

Classification based on data available for ingredients. Causes serious eye irritation.

## BUTANONE (78-93-3)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes serious eye irritation

**Respiratory or skin sensitisation**

Based on available data the classification criteria are not met.

## BUTANONE (78-93-3)

Method	Species	Exposure route	Results
OECD 406	Guinea pig	Dermal	Not a skin sensitiser

**Germ cell mutagenicity**

Based on available data the classification criteria are not met.

## Component Information

## BUTANONE (78-93-3)

Method	Species	Results
	in vitro	Not mutagenic

**Carcinogenicity**

Based on available data the classification criteria are not met.

**Reproductive toxicity**

Based on available data the classification criteria are not met.

## BUTANONE (78-93-3)

Method	Species	Results
		This product does not contain any known or suspected reproductive hazards

**STOT - single exposure**

May cause drowsiness or dizziness.

## BUTANONE (78-93-3)

Method	Species	Exposure route	Effective dose	Exposure time	Results
		Inhalation			May cause drowsiness or dizziness Central nervous system

**STOT - repeated exposure**

Based on available data the classification criteria are not met.

**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.

#### BUTANONE (78-93-3)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 203: Fish, Acute Toxicity Test	Pimephales promelas	LC50	2993 mg/L	96 hours	
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Daphnia magna	EC50	308 mg/L	48 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Pseudokirchneriella subcapitata	ErC50	2029 mg/L	96 hours	

### 12.2. Persistence and degradability

**Persistence and degradability** Readily biodegradable.

#### BUTANONE (78-93-3)

Method	Exposure time	Value	Results
OECD Test No. 301D: Ready Biodegradability: Closed Bottle Test (TG 301 D) or Equivalent.	28 days	98%	Readily biodegradable

### 12.3. Bioaccumulative potential

**Bioaccumulation** Not likely to bioaccumulate.

#### Component Information

Chemical name	Partition coefficient
BUTANONE	0.29

### 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
BUTANONE	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	UN1193
14.2 UN proper shipping name	ETHYL METHYL KETONE
14.3 Transport hazard class(es)	3
14.4 Packing group	II
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None
ERG Code	3L

#### IMDG

14.1 UN number or ID number	UN1193
UN proper shipping name	ETHYL METHYL KETONE
14.3 Transport hazard class(es)	3
14.4 Packing group	II
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None
EmS-No	F-E, S-D
14.7 Maritime transport in bulk according to IMO instruments	No information available

#### RID

14.1 UN number or ID number	UN1193
14.2 UN proper shipping name	ETHYL METHYL KETONE
14.3 Transport hazard class(es)	3
14.4 Packing group	II
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None
Classification code	F1

#### ADR

14.1 UN number or ID number	UN1193
14.2 UN proper shipping name	ETHYL METHYL KETONE
14.3 Transport hazard class(es)	3
14.4 Packing group	II
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None
Classification code	F1
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 does not contain substances subject to authorisation (UK REACH - Annex XIV).

This product does not contain substances subject to restriction (UK REACH - Annex XVII).

##### **Persistent Organic Pollutants**

Not applicable

##### **Export Notification requirements**

Not applicable

##### **Dangerous substance category per COMAH Regulations 2015 (as amended)**

P5c - 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

A Chemical Safety Assessment has been carried out for this substance

## **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

EUH066 - Repeated exposure may cause skin dryness or cracking

H225 - Highly flammable liquid and vapour

H319 - Causes serious eye irritation

H336 - May cause drowsiness or dizziness

#### 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 9 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

**Supersedes date** 30-Mar-2023

**Revision date** 07-Apr-2025

**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**