

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 31-Jan-2024 Revision Number 1

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

1.1. Product identifier

Product Code(s) VHG-MISA5-100

Product Name MISA Standard 5: Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Nd, Pr, Sc, Sm, Tb, Th, Tm, Y, Yb @ 100

μg/mL in 2% HNO3

Form Not applicable

Unique Formula Identifier (UFI) 0HTS-P087-E00G-R9Y9

Pure substance/mixture Mixture

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

Recommended use Laboratory use

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier

LGC Limited Queens Road Teddington Middlesex TW11 0LY UNITED KINGDOM :+44 (0) 20 8943 7000 Fax :+44 (0) 20 8943 2767 eMail : gb@lgcstandards.com

Web: www.lgcstandards.com

For further information, please contact

E-mail address sds-request@lgcgroup.com

1.4. Emergency telephone number

Emergency Telephone For Hazardous Materials or Dangerous Goods Incident

Spill, Leak, Fire Exposure, or Accident

Call CHEMTREC:

USA & Canada 1-800-424-9300 Rest of the world +1 703-741-5970

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	mergency Telephone - §45 - (EC)1272/2008				
Europe	112				
Austria	No information available				
Bulgaria					
Croatia					
Cyprus					
Czech Republic					
Denmark					
France					
Hungary					
Ireland					
Italy					
Lithuania					
Luxembourg					
Netherlands					
Norway					
Portugal					
Romania					
Slovakia					
Slovenia					
Spain					
Sweden					
Switzerland					

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Corrosive to metals	Category 1 - (H290)

2.2. Label elements

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Signal word Warning

Hazard statements

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H290 - May be corrosive to metals

EUH071 - Corrosive to the respiratory tract

Precautionary Statements - EU (§28, 1272/2008)

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

P280 - Wear protective gloves and eye/face protection

P332 + P313 - If skin irritation occurs: Get medical advice/attention

P337 + P313 - If eye irritation persists: Get medical advice/attention

P390 - Absorb spillage to prevent material damage

P201 - Obtain special instructions before use

P234 - Keep only in original container

P406 - Store in corrosive resistant stainless steel container with a resistant inner liner

2.3. Other hazards

No information available.

This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

Chemical name	EU - REACH (1907/2006) - Article 59(1)	EU - REACH (1907/2006) - Endocrine
	- Candidate List of Substances of Very	Disruptor Assessment List of
	High Concern (SVHC) for Authorisation	Substances
Nitric Acid	-	-
Yttrium oxide	-	-

SECTION 3: Composition/information on ingredients

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3.1 Substances

Not applicable

3.2 Mixtures

Chemical nature

aqueous solution.

Chemical name	Weight-%	REACH registration number	`	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Nitric Acid 7697-37-2	1-<3	-	231-714-2	Met. Corr. 1 (H290) Ox. Liq. 2 (H272) Acute Tox. 3 (H331) Skin Corr. 1A (H314) (EUH071)	Ox. Liq. 2 ::		
Yttrium oxide 1314-36-9	<0.1	-	215-233-5	-			

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

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg		Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Nitric Acid 7697-37-2	No data available	No data available	No data available	2.65	No data available

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

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General advice Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and

persists.

Skin contact Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical

attention if irritation develops and persists.

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce

vomiting. Call a doctor.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

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

Symptoms May cause redness and tearing of the eyes. Burning sensation.

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

Note to doctorsTreat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

surrounding environment.

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

Unsuitable extinguishing mediaDo 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

No information available.

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.

Use personal protection equipment.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal

protective equipment as required.

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

6.2. Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

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 Handle in accordance with good industrial hygiene and safety practice. Avoid contact with

skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off

contaminated clothing and wash it before reuse.

General hygiene considerations Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with

skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands

before breaks and after work. Wear suitable gloves and eye/face protection.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from

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moisture. Store locked up. Keep out of the reach of children. Store away from other materials. Please refer to the manufacturer's certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA.

7.3. Specific end use(s)

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	European Union	Austria	Belgium	Bulgaria	Croatia
Nitric Acid	-	STEL 1 ppm	STEL: 1 ppm	STEL: 1 ppm	STEL: 1 ppm
7697-37-2		STEL 2.6 mg/m ³	STEL: 2.6 mg/m ³	STEL: 2.6 mg/m ³	STEL: 2.6 mg/m ³
Yttrium oxide	-	-	TWA: 1 mg/m ³	-	-
1314-36-9					
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Nitric Acid	STEL: 1 ppm	TWA: 1 mg/m ³	STEL: 1 ppm	STEL: 1 ppm	TWA: 0.5 ppm
7697-37-2	STEL: 2.6 mg/m ³	Ceiling: 2.5 mg/m ³	STEL: 2.6 mg/m ³	STEL: 2.6 mg/m ³	TWA: 1.3 mg/m ³
					STEL: 1 ppm
					STEL: 2.6 mg/m ³
Yttrium oxide	-	-	TWA: 1 mg/m ³	-	TWA: 1 mg/m ³
1314-36-9			STEL: 2 mg/m ³		
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Nitric Acid	STEL: 1 ppm	TWA: 1 ppm	-	STEL: 1 ppm	STEL: 2.6 mg/m ³
7697-37-2	STEL: 2.6 mg/m ³	TWA: 2.6 mg/m ³		STEL: 2.6 mg/m ³	STEL: 1 ppm
Yttrium oxide	-	-	=	TWA: 5 mg/m ³	-
1314-36-9					
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Nitric Acid	STEL: 1 ppm	STEL: 1 ppm	TWA: 2 ppm	TWA: 0.78 ppm	STEL: 1 ppm
7697-37-2	STEL: 2.6 mg/m ³	STEL: 2.6 mg/m ³	TWA: 5.2 mg/m ³	TWA: 2 mg/m ³	STEL: 2.6 mg/m ³
			STEL: 4 ppm	STEL: 1 ppm	
			STEL: 10.3 mg/m ³	STEL: 2.6 mg/m ³	
Yttrium oxide	-	-	TWA: 1 mg/m ³	-	TWA: 2 mg/m ³
1314-36-9					
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Nitric Acid	STEL: 1 ppm	STEL: 1 ppm	STEL: 0.5 ppm	TWA: 2 ppm	TWA: 1.4 mg/m ³

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7697-37-2	STE	L: 2.6 mg/m ³	STEL: 2.6 mg/m ³	STEL: 1.3 mg/m ³	STEL	5 mg/m³ .: 4 ppm 10 mg/m³	STEL: 2.6 mg/m ³
Yttrium oxide 1314-36-9		-	-	-		-	TWA: 1 mg/m ³
Chemical name		Portugal	Romania	Slovakia	Slo	venia	Spain
Nitric Acid 7697-37-2	ST STE	VA: 2 ppm 'EL: 1 ppm L: 2.6 mg/m ³	STEL: 1 ppm STEL: 2.6 mg/m ³	Ceiling: 2.6 mg/m ³	TWA: 2 STEL	: 1 ppm 2.6 mg/m³ .: 1 ppm 2.6 mg/m³	STEL: 1 ppm STEL: 2.6 mg/m ³
Yttrium oxide 1314-36-9	TW	'A: 1 mg/m ³	-	-		-	TWA: 1 mg/m ³
Chemical name		Sı	weden	Switzerland		Uni	ited Kingdom
7697-37-2 NGV:		: 0.5 ppm 1.3 mg/m ³ e KGV: 1 ppm	TWA: 2 ppm TWA: 5 mg/m³ STEL: 2 ppm	1		TEL: 1 ppm EL: 2.6 mg/m³	
		Bindande k	(GV: 2.6 mg/m ³	STEL: 5 mg/m ²	3		

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)
Predicted No Effect Concentration

No information available. No information available.

(PNEC)

8.2. Exposure controls

Personal protective equipment

Eye/face protection Avoid contact with eyes. Wear safety glasses with side shields (or goggles). If splashes are

likely to occur, wear safety glasses with side-shields.

Hand protection Wear protective Neoprene™ gloves. Wear suitable gloves. Impervious gloves. The

protective gloves to be used must comply with the specifications of EC Directive

89/686/EEC and the related standard EN374.

Skin and body protection Long sleeved clothing. Wear suitable protective clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are

exceeded or irritation is experienced, ventilation and evacuation may be required.

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General hygiene considerations Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with

skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands

before breaks and after work. Wear suitable gloves and eye/face protection.

Environmental exposure controls Do not allow into any sewer, on the ground or into any body of water.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid Appearance Liquid Colour colourless Odour Odourless.

Odour threshold No information available

Remarks • Method **Property** <u>Values</u>

No data available None known Melting point / freezing point Initial boiling point and boiling rangeNo data available None known **Flammability** No data available None known Flammability Limit in Air None known

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Flash point No data available None known No data available **Autoignition temperature** None known

Decomposition temperature

None known No data available None known рH

pH (as aqueous solution) No data available No information available

No data available Kinematic viscosity None known **Dynamic viscosity** No data available None known Water solubility No data available None known Solubility(ies) No data available None known No data available Partition coefficient None known No data available Vapour pressure None known No data available None known

Relative density No data available **Bulk density** No data available **Liquid Density**

Relative vapour density No data available None known

Particle characteristics

Particle Size No information available No information available Particle Size Distribution

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9.2. Other information

9.2.1. Information with regards to physical hazard classes Not applicable

9.2.2. Other safety characteristics No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None. Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Exposure to air or moisture over prolonged periods.

10.5. Incompatible materials

Incompatible materials Oxidising agent. Strong acids. Strong bases.

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Product Information

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Inhalation Specific test data for the substance or mixture is not available.

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. Causes skin irritation. (based

on components).

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 Redness. May cause redness and tearing of the eyes.

Numerical measures of toxicity

Acute toxicity

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

 ATEmix (oral)
 99,999.00 mg/kg

 ATEmix (dermal)
 99,999.00 mg/kg

 ATEmix (inhalation-gas)
 99,999.00 ppm

 ATEmix (inhalation-dust/mist)
 99,999.00 mg/l

 ATEmix (inhalation-vapour)
 139.50 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Nitric Acid			= 2500 ppm (Rat) 1 h
			ATE (vapours) = 2.65 mg/L
Yttrium oxide	> 5g/kg (Rat)		> 5.09 mg/L (Rat) 4h

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 skin irritation.

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

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Respiratory or skin sensitisation No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

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

12.2. Persistence and degradability

Persistence and degradability No information available.

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12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient	
Nitric Acid	-2.3	

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessmentNo information available.

Chemical name	PBT and vPvB assessment	
Nitric Acid	The substance is not PBT / vPvB	
Yttrium oxide	The substance is not PBT / vPvB	

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information

<u>IATA</u>

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14.1 UN number or ID number UN3264

14.2 UN proper shipping name Corrosive liquid, acidic, inorganic, n.o.s. (Nitric Acid)

14.3 Transport hazard class(es) 814.4 Packing group | | | |

Description UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Nitric Acid), 8, III

14.5 Environmental hazards Not applicable

14.6 Special precautions for user

Special Provisions A3, A803 ERG Code 8L

IMDG

14.1 UN number or ID number UN3264

14.2 UN proper shipping name Corrosive liquid, acidic, inorganic, n.o.s. (Nitric Acid)

14.3 Transport hazard class(es) 8
14.4 Packing group | | | |

Description UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Nitric Acid), 8, III

14.5 Marine pollutant NP

14.6 Special precautions for user

Special Provisions 223, 274

EmS-No.

F-A, S-B No information available
No information available

14.7 Maritime transport in bulk according to IMO instruments

RID

14.1 UN number or ID number UN3264

14.2 UN proper shipping name Corrosive liquid, acidic, inorganic, n.o.s. (Nitric Acid)

14.3 Transport hazard class(es) 8 14.4 Packing group III

Description UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Nitric Acid), 8, III

14.5 Environmental hazards Not applicable

14.6 Special precautions for user

Special Provisions 274 Classification code C1

ADR

14.1 UN number or ID number UN3264

14.2 UN proper shipping name Corrosive liquid, acidic, inorganic, n.o.s. (Nitric Acid)

14.3 Transport hazard class(es) 8
14.4 Packing group

Description UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Nitric Acid), 8, III, (E)

14.5 Environmental hazards Not applicable

14.6 Special precautions for user

Special Provisions274Classification codeC1Tunnel restriction code(E)

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SECTION 15: Regulatory information

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

Water hazard class (WGK) non-hazardous to water (nwg)

Poland

SDS created according to the following Polish regulation: Act of February 25, 2011 on chemical substances and their mixtures (Journal of Laws of 2018, item 143, as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing the European Chemicals Agency (EC) as amended. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, as amended. Regulation of the Minister of Health of 10 August 2012 on the criteria and method of classifying chemical substances and their mixtures (Journal of Laws of 2012, item 1018). Regulation of the Minister of Health of 20 April 2012 on labeling packaging of hazardous substances and mixtures and some mixtures (Journal of Laws of 2012, item 445). Regulation of the Minister of Family, Labor and Social Policy of 12 June 2018 on the maximum allowable concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286). Announcement of the Minister of Economy, Labor and Social Policy of August 28, 2003 on the publication of the unified text of the Ordinance of the Minister of Labor and Social Policy on general health and safety at work regulations (Journal of Laws of 2003. No. 169, item 1650), Regulation of the Minister of Health of 30 December 2004 on occupational safety and health related to the presence of chemical agents in the workplace (Journal of Laws of 2005, No. 11, item 86). Act of December 14, 2012 on waste (Journal of Laws of 2013, item 21) Regulation of the Minister of Health of December 30, 2004 on occupational health and safety related to the presence of chemical agents in the workplace (Journal U. of 2005, No. 11, item 86). Waste Act of December 14, 2012 (Journal of Laws of 2013, item 21). Act of 13 June 2013 on the management of packaging and packaging waste, Journal of Laws 2013, item 888). Government statement of September 24, 2002 - European Agreement on the International Carriage of Dangerous Goods by Road (ADR) (Journal of Laws No. 194, item 1629 and Journal of Laws of 2003, No. 207, item 2013 and 2014).

European Union

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.

Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

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VHG-MISA5-100 - MISA Standard 5: Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Nd, Pr, Sc, Sm, Tb, Th, Tm, Y, Yb @ 100 µg/mL in 2% HNO3

DIRECTIVE (EU) 2021/1187 on the marketing and use of explosives precursorsNot applicable

Chemical name	RESTRICTED EXPLOSIVES PRECURSORS - ANNEX I	REPORTABLE EXPLOSIVES PRECURSORS - ANNEX II
Nitric Acid - 7697-37-2	3 %w/w	-

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
Nitric Acid - 7697-37-2	75.	NEAGT MINOX ATV

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

TSCA Complies

DSL/NDSL
Contact supplier for inventory compliance status
Contact supplier for inventory compliance status
ENCS
Contact supplier for inventory compliance status
IECSC
Contact supplier for inventory compliance status
KECL
Contact supplier for inventory compliance status
Contact supplier for inventory compliance status
Contact supplier for inventory compliance status
AIIC
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

AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

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Chemical Safety Report

A Chemical Safety Assessment is not required 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

EUH071 - Corrosive to the respiratory tract

H272 - May intensify fire; oxidiser

H290 - May be corrosive to metals

H314 - Causes severe skin burns and eye damage

H331 - Toxic if inhaled

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 Sk* Skin designation

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	On basis of test data
Serious eye damage/eye irritation	On basis of test data
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

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Corrosive to metals

On basis of test data

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)

EPA (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)

Japan GHS Classification

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)

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

Revision date

31-Jan-2024

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 Disclaimer

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End of Safety Data Sheet

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