SAFETY DATA SHEET

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

Revision date 15-May-2025 **Effective date** 07-Jan-2026 **Revision Number** 1

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

1.1. Product identifier

Product Code(s) SDS-00001

Product Name KOVA-Trol I

PR No

Product description	Product Code(s)
KOVA-Trol® I: high abnormal w urobilinogen (4 x 60mL)	87332
KOVA-Trol® I: high abnormal w urobilinogen (8 x 60 mL	87533
KOVA-Trol® I: high abnormal w urobilinogen (4 x 15 mL)	87334

Form Not applicable

Pure substance/mixture Mixture

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

Recommended use In Vitro Diagnostic Use

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier

LGC Clinical Diagnostics, Inc
37 Birch Street
Milford, MA 01757
Phone #: (508) 244-6400
US Toll Free: (800) 676-1881
Fax #: (508) 634-3394
www.seracare.com

For further information, please contact

E-mail address CDx-CustomerService@LGCGroup.com

1.4. Emergency telephone number

Emergency Telephone For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

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SDS-00001 - KOVA-Trol I

Account number: CCN12505

Emergency 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]

Corrosive to metals	Category 1 - (H290)

2.2. Label elements



Signal word

Warning

Hazard statements
H290 - May be corrosive to metals.

Precautionary Statements - EU (§28, 1272/2008)
P234 - Keep only in original packaging
P390 - Absorb spillage to prevent material damage

2.3. Other hazards

Causes mild skin irritation.

PBT & vPvB 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) - Candidate List of Substances of Very High Concern (SVHC) for Authorisation	EU - REACH (1907/2006) - Endocrine Disruptor Assessment List of Substances
Sodium bicarbonate	-	-
Sodium hydroxide	-	-
Potassium ferricyanide	-	-
Hydrochloric acid	-	-
Sodium chloride	-	-
Potassium cyanide	-	-
sodium nitrite	-	-
calcium chloride	-	-

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical nature Biological standards.

Chemical name	Weight-%	REACH registration number	EC No. (Index No.)	Classification according to Regulation (EC) No.	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	Notes

				1272/2008 [CLP]				
Sodium bicarbonate 144-55-8	1 - <3	-	205-633-8	-	-	-	-	-
Sodium hydroxide 1310-73-2	0.1 - 1	-	215-185-5 (011-002-00-6)	Met. Corr. 1 (H290) Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Corr. 1A (H314) Eye Dam. 1 (H318)	Eye Irrit. 2 :: 0.5%<=C<2% Skin Corr. 1A :: C>=5% Skin Corr. 1B :: 2%<=C<5% Skin Irrit. 2 :: 0.5%<=C<2%	-	-	-
Potassium ferricyanide 13746-66-2	0.1 - 1	-	237-323-3	Eye Irrit. 2 (H319) Aquatic Chronic 3 (H412) (EUH032)	-	-	-	-
Hydrochloric acid 7647-01-0	0.1 - 1	-	231-595-7 (017-002-00-2)	Met. Corr. 1 (H290) Skin Corr. 1B (H314) STOT SE 3 (H335)	Eye Irrit. 2 :: 10%<=C<25 % Skin Corr. 1B :: C>=25% Skin Irrit. 2 :: 10%<=C<25 % STOT SE 3 :: C>=10%	-	-	U,5
Sodium chloride 7647-14-5	<0.1	-	231-598-3	-	-	-	-	-
Potassium cyanide 151-50-8	<0.1	-	205-792-3 (006-007-00-5)	Met. Corr. 1 (H290) Acute Tox. 1 (H300) Acute Tox. 1 (H310) Acute Tox. 1 (H330) Repr. 2 (H361) STOT RE 1 (H372) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) EUH032	-	-	-	-
Ammonium oxalate monohydrate 6009-70-7	<0.1	-	(607-007-00-3)	Acute Tox. 4 (H302) Acute Tox. 4 (H312)	-	-	-	A
sodium nitrite 7632-00-0	<0.1	-	231-555-9 (007-010-00-4)	Ox. Sol. 2 (H272) Acute Tox. 3 (H301) Eye Irrit. 2A (H319) Aquatic Acute 1 (H400)	-	-	-	-
Proteinase	<0.1	-	232-642-4	Skin Irrit. 2 (H315)	-	-	-	-

9001-92-7			(647-014-00-9)	Eye Irrit. 2 (H319) Resp. Sens. 1 (H334) STOT SE 3 (H335)				
calcium chloride 10043-52-4	<0.1	-	233-140-8 (017-013-00-2)	Acute Tox.4 (H302) Eye Irrit. 2 (H319)	-	-	-	-

- Substances contained in this mixture with No registration number are under the REACH threshold in Article 6(1) and not subject to the registration requirements according to REACH Title II

CLP Notes:

Note A - Without prejudice to Article 17(2) of Regulation (EC) No 1272/2008, the name of the substance must appear on the label in the form of one of the designations given in Part 3 of Annex VI to that Regulation. In that Part, use is sometimes made of a general description such as "... compounds" or "... salts". In this case, the supplier who places such a substance on the market is required to state on the label the correct name, due account being taken of Section 1.1.1.4 of Annex VI to Regulation (EC) No 1272/2008.

Note U - When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case. The following codes are assigned: Press. Gas (Comp.), Press. Gas (Liq.), Press. Gas (Ref. Liq.), Press. Gas (Diss.). Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2).

Note 5 - The concentration limits for gaseous mixtures are expressed as volume per volume percentage.

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	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Sodium bicarbonate 144-55-8	4220	No data available	No data available	No data available	No data available
Sodium hydroxide 1310-73-2	325	1350	No data available	No data available	No data available
Hydrochloric acid 7647-01-0	238	5015.01	No data available	No data available	563.3022
Sodium chloride 7647-14-5	3550	10010	No data available	No data available	No data available
Potassium cyanide 151-50-8	7.49	22.3	0.04	No data available	No data available
sodium nitrite 7632-00-0	85	No data available	5.5	No data available	No data available
calcium chloride 10043-52-4	1000	5000	No data available	No data available	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).

Additional information
BSL2

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. 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 Prolonged contact may cause redness and irritation.

Effects of Exposure No information available.

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

Note to doctors Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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	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.

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.
For emergency responders	Use personal protection recommended in Section 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. Do not breathe dust/fume/gas/mist/vapours/spray.

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

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions 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. Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.

Storage class (TRGS 510) LGK 6.2.

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
Sodium hydroxide 1310-73-2	-	TWA: 2 mg/m^3 STEL 4 mg/m^3	TWA: 2 mg/m^3	TWA: 2.0 mg/m^3	STEL: 2 mg/m^3
Potassium ferricyanide 13746-66-2	-		TWA: 1 mg/m^3	TWA: 1.0 mg/m^3	TWA: 5 mg/m^3 TWA: 1 mg/m^3 STEL: 2 mg/m^3
Hydrochloric acid 7647-01-0	TWA: 5 ppm TWA: 8 mg/m^3 STEL: 10 ppm STEL: 15 mg/m^3	TWA: 5 ppm TWA: 8 mg/m^3 STEL 10 ppm STEL 15 mg/m^3	TWA: 5 ppm TWA: 8 mg/m^3 STEL: 10 ppm STEL: 15 mg/m^3	TWA: 5 ppm TWA: 8.0 mg/m^3 STEL: 10 ppm STEL: 15.0 mg/m^3	TWA: 5 ppm TWA: 8 mg/m^3 STEL: 10 ppm STEL: 15 mg/m^3
Potassium cyanide 151-50-8	* STEL: 5 mg/m^3 CN TWA: 1 mg/m^3 CN	TWA: 1 mg/m^3 STEL 5 mg/m^3 Sk*	TWA: 1 mg/m^3 STEL: 5 mg/m^3 Sk*	TWA: 1 mg/m^3 STEL: 5 mg/m^3 Sk*	TWA: 1 mg/m^3 STEL: 5 mg/m^3 Sk*
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Sodium bicarbonate	-	TWA: 5 mg/m^3	-	-	-

144-55-8		Ceiling: 10 mg/m^3			
Sodium hydroxide 1310-73-2	-	TWA: 1 mg/m^3 Ceiling: 2 mg/m^3	Ceiling: 2 mg/m^3	TWA: 1 mg/m^3 STEL: 2 mg/m^3	Ceiling: 2 mg/m^3
Potassium ferricyanide 13746-66-2	-	TWA: 3 mg/m^3 Ceiling: 10 mg/m^3 D*	TWA: 1 mg/m^3 STEL: 2 mg/m^3	-	TWA: 1 mg/m^3 STEL: 5 mg/m^3 iho*
Hydrochloric acid 7647-01-0	TWA: 5 ppm TWA: 8 mg/m^3 STEL: 10 ppm STEL: 15 mg/m^3	TWA: 8 mg/m^3 Ceiling: 15 mg/m^3	STEL: 5 ppm STEL: 8 mg/m^3	TWA: 5 ppm TWA: 8 mg/m^3 STEL: 10 ppm STEL: 15 mg/m^3	STEL: 5 ppm STEL: 7.6 mg/m^3
Potassium cyanide 151-50-8	TWA: 1 mg/m^3 STEL: 5 mg/m^3 Sk*	TWA: 1 mg/m^3 TWA: 3 mg/m^3 Sk* Ceiling: 5 mg/m^3	TWA: 1 mg/m^3 STEL: 5 mg/m^3 Sk*	TWA: 1 mg/m^3 STEL: 5 mg/m^3 Sk*	TWA: 1 mg/m^3 STEL: 5 mg/m^3 Sk*
Ammonium oxalate monohydrate 6009-70-7	-	-	-	-	TWA: 1 mg/m^3 STEL: 3 mg/m^3 Sk*
calcium chloride 10043-52-4	-	TWA: 5 mg/m^3 Ceiling: 4 mg/m^3	-	-	-
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Sodium hydroxide 1310-73-2	TWA: 2 mg/m^3	-	-	TWA: 2 mg/m^3 STEL: 2 mg/m^3	TWA: 1 mg/m^3 STEL: 2 mg/m^3
Potassium ferricyanide 13746-66-2	TWA: 5 mg/m^3	-	TWA: 2 mg/m^3 Peak: 2 mg/m^3 *	TWA: 1 mg/m^3 STEL: 2 mg/m^3 STEL: 5 mg/m^3 *	TWA: 1 mg/m^3 STEL: 5 mg/m^3 b*
Hydrochloric acid 7647-01-0	STEL: 5 ppm STEL: 7.6 mg/m^3	TWA: 2 ppm TWA: 3 mg/m^3	TWA: 2 ppm TWA: 3.0 mg/m^3 Peak: 4 ppm Peak: 6 mg/m^3	TWA: 5 ppm TWA: 7 mg/m^3 STEL: 5 ppm STEL: 7 mg/m^3	TWA: 8 mg/m^3 TWA: 5 ppm STEL: 165 mg/m^3 STEL: 10 ppm
Potassium cyanide 151-50-8	TWA: 1 mg/m^3 STEL: 5 mg/m^3 Sk*	TWA: 1 mg/m^3 Sk*	TWA: 5.0 mg/m^3 Peak: 5.0 mg/m^3 Sk*	TWA: 1 mg/m^3 STEL: 5 mg/m^3 Sk*	TWA: 1 mg/m^3 STEL: 5 mg/m^3 Sk*
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Sodium bicarbonate 144-55-8	-	-	-	TWA: 5 mg/m^3	-
Sodium hydroxide 1310-73-2	STEL: 2 mg/m^3	-	Ceiling: 2 mg/m^3	TWA: 0.5 mg/m^3	Ceiling: 2 mg/m^3
Potassium ferricyanide 13746-66-2	TWA: 5 mg/m^3 TWA: 1 mg/m^3 STEL: 15 mg/m^3 STEL: 2 mg/m^3	-	TWA: 1 mg/m^3	TWA: 4 mg/m^3	-
Hydrochloric acid 7647-01-0	TWA: 8 mg/m^3 TWA: 5 ppm STEL: 10 ppm STEL: 15 mg/m^3	TWA: 5 ppm TWA: 8 mg/m^3 STEL: 10 ppm STEL: 15 mg/m^3	Ceiling: 2 ppm Ceiling: 2.9 mg/m^3	TWA: 5 ppm TWA: 8 mg/m^3 STEL: 10 ppm STEL: 15 mg/m^3	TWA: 5 ppm TWA: 8 mg/m^3 STEL: 10 ppm STEL: 15 mg/m^3
Sodium chloride	-	-	-	TWA: 5 mg/m^3;	TWA-IPRD: 5

7647-14-5					mg/m³;
Potassium cyanide 151-50-8	TWA: 1 mg/m³ STEL: 5 mg/m³ Sk*	TWA: 1 mg/m³ STEL: 5 mg/m³ Sk*	Sk* Ceiling: 5 mg/m³	TWA: 1 mg/m³ STEL: 5 mg/m³ Sk*	TWA: 1 mg/m³ Sk* Ceiling: 5 mg/m³
sodium nitrite 7632-00-0	-	-	-	-	Ceiling: 0.1 mg/m³
calcium chloride 10043-52-4	-	-	-	TWA: 2 mg/m³	-
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Sodium hydroxide 1310-73-2	-	-	-	Ceiling: 2 mg/m³	TWA: 0.5 mg/m³ STEL: 1 mg/m³
Potassium ferricyanide 13746-66-2	-	-	TWA: 0.9 ppm TWA: 1 mg/m³ STEL: 4.5 ppm STEL: 5 mg/m³ H*	TWA: 5 mg/m³ TWA: 1 mg/m³ STEL: 10 mg/m³ STEL: 3 mg/m³ H*	-
Hydrochloric acid 7647-01-0	TWA: 5 ppm TWA: 8 mg/m³ STEL: 10 ppm STEL: 15 mg/m³	TWA: 5 ppm TWA: 8 mg/m³ STEL: 10 ppm STEL: 15 mg/m³	TWA: 5 ppm TWA: 8 mg/m³ STEL: 10 ppm STEL: 15 mg/m³	Ceiling: 5 ppm Ceiling: 7 mg/m³	TWA: 5 mg/m³ STEL: 10 mg/m³
Potassium cyanide 151-50-8	TWA: 1 mg/m³ STEL: 5 mg/m³ Sk*	TWA: 1 mg/m³ STEL: 5 mg/m³ Sk*	TWA: 0.9 ppm TWA: 1 mg/m³ STEL: 4.5 ppm STEL: 5 mg/m³ Sk*	TWA: 0.9 ppm TWA: 1 mg/m³ STEL: 4 ppm STEL: 5 mg/m³ Sk*	TWA: 1 mg/m³ Sk* ceiling: 5 mg/m³
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Sodium hydroxide 1310-73-2	Ceiling: 2 mg/m³	TWA: 1 mg/m³ STEL: 3 mg/m³	TWA: 2 mg/m³	-	STEL: 2 mg/m³
Potassium ferricyanide 13746-66-2	TWA: 1 mg/m³	TWA: 0.5 mg/m³ STEL: 1 mg/m³ P*	TWA: 1 mg/m³ K* Ceiling: 5 mg/m³	-	TWA: 1 mg/m³
Hydrochloric acid 7647-01-0	TWA: 5 ppm TWA: 8 mg/m³ STEL: 10 ppm STEL: 15 mg/m³ Ceiling: 2 ppm	TWA: 5 ppm TWA: 8 mg/m³ STEL: 10 ppm STEL: 15 mg/m³	TWA: 5 ppm TWA: 8.0 mg/m³ Ceiling: 15 mg/m³	TWA: 5 ppm TWA: 8 mg/m³ STEL: 10 ppm STEL: 15 mg/m³	TWA: 5 ppm TWA: 7.6 mg/m³ STEL: 10 ppm STEL: 15 mg/m³
Potassium cyanide 151-50-8	TWA: 1 mg/m³ STEL: 5 mg/m³ Sk* Ceiling: 5 mg/m³	TWA: 1 mg/m³ STEL: 5 mg/m³ Sk*	TWA: 1 mg/m³ Sk* Ceiling: 5 mg/m³	TWA: 1 mg/m³ STEL: 5 mg/m³ Sk*	TWA: 1 mg/m³ STEL: 5 mg/m³ Sk*

Chemical name	Sweden	Switzerland	United Kingdom
Sodium hydroxide 1310-73-2	NGV: 1 mg/m³ Bindande KGV: 2 mg/m³	TWA: 2 mg/m³ STEL: 2 mg/m³	STEL: 2 mg/m³
Potassium ferricyanide 13746-66-2	NGV: 1 mg/m³ H*	TWA: 1 mg/m³ H*	TWA: 5 mg/m³ TWA: 1 mg/m³ STEL: 15 mg/m³ STEL: 2 mg/m³

			Sk*
Hydrochloric acid 7647-01-0	NGV: 2 ppm NGV: 3 mg/m^3 Bindande KGV: 4 ppm Bindande KGV: 6 mg/m^3	TWA: 2 ppm TWA: 3 mg/m^3 STEL: 4 ppm STEL: 6 mg/m^3	TWA: 1 ppm TWA: 2 mg/m^3 STEL: 5 ppm STEL: 8 mg/m^3
Potassium cyanide 151-50-8	NGV: 1 mg/m^3 Bindande KGV: 4 mg/m^3 Sk*	TWA: 5 mg/m^3 STEL: 5 mg/m^3 Sk*	TWA: 1 mg/m^3 STEL: 5 mg/m^3 Sk*
Proteinase 9001-92-7	NGV: 1 glycine unit/m^3 Bindande KGV: 3 glycine unit/m^3	-	-

Biological occupational exposure limits

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
Potassium ferricyanide 13746-66-2	-	-	-	6.5 mg/24 hours - urine (Thiocyanates) - urine collected over 24 hours <3 mg - urine and blood (Thiocyanate ratio in urine (mg/g Creatinine) and Carboxyhemoglobin in blood (%)) - urine and blood collected at the end of the work shift	-
Potassium cyanide 151-50-8	-	-	-	6.5 mg/24 hours - urine (Thiocyanates) - urine collected over 24 hours <3 mg - urine and blood (Thiocyanate ratio in urine (mg/g Creatinine) and Carboxyhemoglobin in blood (%)) - urine and blood collected at the end of the work shift	-

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
Sodium hydroxide 1310-73-2	-	-	1 mg/m^3 [5] [6]
Potassium dihydrogenorthophosphate 7778-77-0	-	-	14.82 mg/m^3 [4] [6]
Potassium ferricyanide 13746-66-2	-	9 mg/kg bw/day [4] [6]	-
Hydrochloric acid 7647-01-0	-	-	8 mg/m^3 [5] [6] 15 mg/m^3 [5] [7]
Sodium chloride 7647-14-5	-	295.52 mg/kg bw/day [4] [6] 295.52 mg/kg bw/day [4] [7]	2068.62 mg/m^3 [4] [6] 2068.62 mg/m^3 [4] [7]
D-(-)-Isoascorbic acid 89-65-6	-	10 mg/kg bw/day [4] [6]	70.5 mg/m^3 [4] [6]
Potassium cyanide 151-50-8	-	0.14 mg/kg bw/day [4] [6] 4.03 mg/kg bw/day [4] [7]	0.94 mg/m^3 [4] [6] 12.5 mg/m^3 [4] [7]

Notes

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

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
Sodium hydroxide 1310-73-2	-	-	1 mg/m^3 [5] [6]
Potassium dihydrogenorthophosphate 7778-77-0	-	-	6.35 mg/m^3 [4] [6]
Potassium ferricyanide 13746-66-2	4.5 mg/kg bw/day [4] [6]	-	-
Hydrochloric acid 7647-01-0	-	-	8 mg/m^3 [5] [6] 15 mg/m^3 [5] [7]
Sodium chloride 7647-14-5	126.65 mg/kg bw/day [4] [6] 126.65 mg/kg bw/day [4] [7]	126.65 mg/kg bw/day [4] [6] 126.65 mg/kg bw/day [4] [7]	443.28 mg/m^3 [4] [6] 443.28 mg/m^3 [4] [7]
D-(-)-Isoascorbic acid 89-65-6	5 mg/kg bw/day [4] [6]	-	35.3 mg/m^3 [4] [6]

Notes

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

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Monobasic sodium phosphate 7558-79-4	0.05 mg/L	0.5 mg/L	0.005 mg/L	-	-
Potassium ferricyanide 13746-66-2	1.7 µg/L	-	0.17 µg/L	-	-
Sodium chloride 7647-14-5	5 mg/L	-	-	-	-
D-(-)-Isoascorbic acid 89-65-6	0.09 mg/L	0.9 mg/L	0.009 mg/L	-	-
Potassium cyanide 151-50-8	1 µg/L	3.2 µg/L	0.2 µg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Monobasic sodium phosphate 7558-79-4	-	-	50 mg/L	-	-
Potassium ferricyanide 13746-66-2	-	-	100 mg/L	-	-
Sodium chloride 7647-14-5	-	-	500 mg/L	4.86 mg/kg soil dw	-
D-(-)-Isoascorbic acid 89-65-6	0.333 mg/kg sediment dw	0.0333 mg/kg sediment dw	-	0.01 mg/kg soil dw	333 mg/kg food
Potassium cyanide 151-50-8	4 µg/kg sediment dw	0.8 µg/kg sediment dw	50 µg/L	7 µg/kg soil dw	-

8.2. Exposure controls

Personal protective equipment

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

Hand protection Wear suitable gloves. The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374. Latex gloves.

Skin and body protection 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.
General hygiene considerations	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. Regular cleaning of equipment, work area and clothing is recommended.
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

Appearance	lyophilised
Physical state	Solid
Colour	yellow, to, amber
Odour	No information available
Odour threshold	No information available

Property	**Values**	**Remarks • Method**
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
SADT (°C)	No data available	None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapour pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapour density	No data available	None known

Particle characteristics

Particle Size	No information available
Particle Size Distribution	No information available

9.2. Other information

9.2.1. Information with regards to physical hazard classes
No information available

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.

10.6. Hazardous decomposition products

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

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.

Skin contact Specific test data for the substance or mixture is not available. Causes mild skin irritation.

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

Symptoms related to the physical, chemical and toxicological characteristics
Symptoms Prolonged contact may cause redness and irritation.

Delayed and immediate effects as well as chronic effects from short and long-term exposure
Acute toxicity Based on available data, the classification criteria are not met.
Numerical measures of toxicity
The following ATE values have been calculated for the mixture:
ATEmix (oral) 99,999.00 mg/kg
ATEmix (dermal) 99,999.00 mg/kg
ATEmix (inhalation-gas) 99,999.00 ppm
ATEmix (inhalation-vapour) 99,999.00 mg/l
ATEmix (inhalation-dust/mist) 99,999.00 mg/l

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium bicarbonate	= 4220 mg/kg (Rat)	-	-
Sodium hydroxide	= 325 mg/kg (Rat)	= 1350 mg/kg (Rabbit)	-
Hydrochloric acid	238 - 277 mg/kg (Rat)	> 5010 mg/kg (Rabbit)	= 1.68 mg/L (Rat) 1 h
Sodium chloride	= 3550 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	> 42 mg/L (Rat) 1 h
Potassium cyanide	= 7.49 mg/kg (Rat)	= 22.3 mg/kg (Rabbit)	= 0.16 mg/L (Rat) 1 h
sodium nitrite	= 85 mg/kg (Rat)	-	= 5.5 mg/L (Rat) 4 h
calcium chloride	= 1000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	-

Skin corrosion/irritation Classification based on data available for ingredients. Causes mild skin irritation.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

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 Based on available data, the classification criteria are not met.

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

STOT - single exposure Based on available data, the classification criteria are not met.

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.

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 The environmental impact of this product has not been fully investigated.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium bicarbonate	-	LC50: 8250 - 9000mg/L (96h, Lepomis macrochirus)	-	EC50: =2350mg/L (48h, Daphnia magna)
Sodium hydroxide	-	LC50: =45.4mg/L (96h,	-	-

		Oncorhynchus mykiss)		
Sodium chloride	-	LC50: 5560 - 6080mg/L (96h, Lepomis macrochirus) LC50: =12946mg/L (96h, Lepomis macrochirus) LC50: 6020 - 7070mg/L (96h, Pimephales promelas) LC50: =7050mg/L (96h, Pimephales promelas) LC50: 6420 - 6700mg/L (96h, Pimephales promelas) LC50: 4747 - 7824mg/L (96h, Oncorhynchus mykiss)	-	EC50: =1000mg/L (48h, Daphnia magna) EC50: 340.7 - 469.2mg/L (48h, Daphnia magna)
Potassium cyanide	-	LC50: 0.04 - 0.046mg/L (96h, Oncorhynchus mykiss) LC50: 0.044 - 0.084mg/L (96h, Oncorhynchus mykiss) LC50: 0.01 - 0.08mg/L (96h, Lepomis macrochirus) LC50: =0.45mg/L (96h, Lepomis macrochirus) LC50: 0.45 - 0.57mg/L (96h, Lepomis macrochirus) LC50: 0.31 - 0.37mg/L (96h, Pimephales promelas) LC50: =0.0588mg/L (96h, Poecilia reticulata)	-	LC50: 0.001 mg/L (48h, Daphnia pulex) LC50: 0.11 mg/L (48h, Daphnia pulex) LC50: 0.709 mg/L (96h, Cancer irroratus) LC50: 0.442 mg/L (96h, Cancer irroratus) LC50: 0.704 mg/L (96h, Cancer irroratus) LC50: 6.1 mg/L (48h, Daphnia magna) LC50: 2.04 mg/L (48h, Spirostomum ambiguum)
sodium nitrite	-	LC50: =0.19mg/L (96h, Oncorhynchus mykiss) LC50: 0.092 - 0.13mg/L (96h, Oncorhynchus mykiss) LC50: 0.4 - 0.6mg/L (96h, Oncorhynchus mykiss) LC50: 0.65 - 1mg/L (96h, Oncorhynchus mykiss)	-	-

		LC50: =2.3mg/L (96h, Pimephales promelas) LC50: =20mg/L (96h, Pimephales promelas)		
calcium chloride	-	LC50: =10650mg/L (96h, Lepomis macrochirus)	-	LC50: 2280000 - 3948000µg/L (48h, Daphnia magna)

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Chemical name	Partition coefficient
sodium nitrite	-3.7

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment Based on available data, the classification criteria are not met.

Chemical name	PBT and vPvB assessment
Sodium bicarbonate	The substance is not PBT / vPvB
Sodium hydroxide	The substance is not PBT / vPvB
Potassium ferricyanide	PBT assessment does not apply
Hydrochloric acid	The substance is not PBT / vPvB
Sodium chloride	The substance is not PBT / vPvB
Potassium cyanide	The substance is not PBT / vPvB
Ammonium oxalate monohydrate	The substance is not PBT / vPvB
sodium nitrite	The substance is not PBT / vPvB
calcium chloride	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties Based on available data, the classification criteria are not met.

12.7. Other adverse effects

Other adverse effects No information available.

PMT or vPvM properties Based on available data, the classification criteria are not met.

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

IATA

14.1 UN number or ID number	UN3373
14.2 UN proper shipping name	Biological substance, Category B
14.3 Transport hazard class(es)	6.2
14.4 Packing group	Not regulated
Description	UN3373, Biological substance, Category B, 6.2
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None
ERG Code	11L

IMDG

14.1 UN number or ID number	UN3373
14.2 UN proper shipping name	Biological substance, category B
14.3 Transport hazard class(es)	6.2
14.4 Packing group	Not regulated
Description	UN3373, Biological substance, category B, 6.2
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	319, 341
EmS-No.	F-A, S-T
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	UN3373
14.2 UN proper shipping name	Biological substance, category B
14.3 Transport hazard class(es)	6.2
14.4 Packing group	Not regulated
Description	UN3373, Biological substance, category B, 6.2
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	319
Classification code	I4

ADR

14.1 UN number or ID number	UN3373

14.2 UN proper shipping name	Biological substance, category B
14.3 Transport hazard class(es)	6.2
14.4 Packing group	Not regulated
Description	UN3373, Biological substance, category B, 6.2, (-)
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	319
Classification code	I4
Tunnel restriction code	(-)

ADN

14.1 UN number or ID number	UN3373
14.2 UN proper shipping name	Biological substance, category B
14.3 Transport hazard class(es)	6.2
14.4 Packing group	Not regulated
Description	UN3373, Biological substance, category B, 6.2
14.5 Environmental hazard	No
14.6 Special precautions for user	
Special Provisions	319
Classification code	I4
Equipment Requirements	PP

SECTION 15: Regulatory information

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

National regulations

France
Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
Sodium chloride 7647-14-5	RG 78	-

Germany

Water hazard class (WGK)	slightly hazardous to water (WGK 1)
Chemical Prohibition Ordinance (ChemVerbotsV)	Not applicable
TRGS 905	Not applicable

Switzerland
Ordinance on the Incentive Tax on Volatile Organic Compounds (OVOC) SR 814.018 Not applicable

Storage of Hazardous Material	Not applicable
WPO (GSchV) SR 814.201; WPA (GSchG) SR 814.20	Class B
Major Accidents Ordinance SR 814.012	Not applicable

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)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
Sodium hydroxide - 1310-73-2	75	
Hydrochloric acid - 7647-01-0	75	
calcium chloride - 10043-52-4	75.	

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

Not applicable

Persistent Organic Pollutants

Not applicable

Named dangerous substances per Seveso Directive (2012/18/EU)

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
Hydrochloric acid - 7647-01-0	25	250

Ozone-depleting substances (ODS) regulation (EC) 2024/590

Not applicable

EU - Plant Protection Products (1107/2009/EC)

Chemical name	EU - Plant Protection Products (1107/2009/EC)
Sodium bicarbonate - 144-55-8	Plant protection agent
Sodium chloride - 7647-14-5	Plant protection agent

Biocidal Products Regulation (EU) No 528/2012 (BPR)

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)
Hydrochloric acid - 7647-01-0	Product-type 2: Disinfectants and algaecides not intended for direct application to humans or animals
Sodium chloride - 7647-14-5	Product-type 1: Human hygiene

International Inventories

TSCA	U.S. INVENTORY (TSCA): Not listed on inventory. For purposes of 40 CFR 720.36, this product is for Research and Development (R&D) Use Only
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
KECL	Contact supplier for inventory compliance status
PICCS	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 Chemicals Inventory
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

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 any hazard and/or precautionary statements referred to under Sections 2-15
EUH032 - Contact with acids liberates very toxic gas
H272 - May intensify fire; oxidiser
H290 - May be corrosive to metals
H300 - Fatal if swallowed
H301 - Toxic if swallowed
H302 - Harmful if swallowed
H310 - Fatal in contact with skin
H312 - Harmful in contact with skin
H314 - Causes severe skin burns and eye damage
H315 - Causes skin irritation
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H330 - Fatal if inhaled
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation

H361 - Suspected of damaging fertility or the unborn child
H372 - Causes damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H412 - Harmful to aquatic life with long lasting effects
P234 - Keep only in original packaging
P390 - Absorb spillage to prevent material damage
P406 - Store in corrosion resistant container with a resistant inner liner

Legend

ACGIH	American Conference of Governmental Industrial Hygienists
AIDII	Italian Association of Industrial Hygienists
ADN	Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Europe)
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road (Europe)
AIIC	Australian Inventory of Industrial Chemicals
ATE	Acute Toxicity Estimate
ASTM	American Society for the Testing of Materials
bar	Biological Reference Values for Chemical Compounds in the Work Area
BAT	Biological tolerance values for occupational exposure
BEL	Biological exposure limits
bw	Body weight
Ceiling	Maximum limit value
CLP	Classification, Labelling and Packaging Regulation; Regulation (EC) No 1272/2008
CMR	Carcinogen, Mutagen or Reproductive Toxicant
DFG	German Research Foundation
DOT	Department of Transportation (United States)
DSL	Domestic Substances List (Canada)
ECHA	European Chemicals Agency
EC Number	European Community number
EmS	Emergency Schedule
ENCS	Existing and New Chemical Substances (Japan)
EPA	Environmental Protection Agency
EWC	European Waste Codes
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO	International Civil Aviation Organisation
IECSC	Inventory of Existing Chemical Substances in China
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Organisation for Standardisation
KECI	Korean Existing Chemicals Inventory
LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)

MAL	Measuring Technical Hygienic Air Needs
MARPOL	International Convention for the Prevention of Pollution from Ships
MDLPS	Ministry of Labour and Social Policy
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOELR	No Observable Effect Loading Rate
NZIoC	New Zealand Inventory of Chemicals
OECD	Organization for Economic Cooperation and Development
OEL	Occupational exposure limits
PBT	Persistent, Bioaccumulative and Toxic substance
PICCS	Philippines Inventory of Chemicals and Chemical Substances
PMT	Persistent, Mobile and Toxic
PPE	Personal protective equipment
QSAR	Quantitative Structure Activity Relationship
REACH	Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)
RID	Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe)
SADT	Self-Accelerating Decomposition Temperature
SAR	Structure-activity relationship
SDS	Safety Data Sheet
SL	Surface Limit
STEL	Short Term Exposure Limit
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
SVHC	Substance of very high concern
TCSI	Taiwan Chemical Substance Inventory
TDG	Transport of Dangerous Goods (Canada)
TRGS	Technical Rule for Hazardous Substances
TSCA	Toxic Substances Control Act (United States)
TWA	Time-Weighted Average
UN	United Nations
VOC	Volatile organic compounds
vPvB	Very Persistent and Very Bioaccumulative
vPvM	Very Persistent and Very Mobile
Sen+	Sensitiser
Sk*	Skin designation
**	Hazard 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	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
Chronic aquatic toxicity	Calculation method
Acute aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method
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)
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

Revision date 15-May-2025
This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006
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End of Safety Data Sheet