

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

Sulfide No.2 Photometer

Revision date 04-27-2021

Revision Number 1

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

1.1. Product identifier

Product Code(s) TBSPSULFD2
Product Name Sulfide No.2 Photometer
Pure substance/mixture Mixture
Contains Sodium bisulfate

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

Recommended use Reagent for water analysis
Uses advised against Others

1.3. Details of the supplier of the safety data sheet

Manufacturer

Water-I.D. GmbH
Daimlerstr. 20
76344 Eggenstein, Deutschland
Tel.: +49 (0) 721 78 20 29 0, Fax: +49 (0) 721 78 20 29 11
Website: www.water-id.com
EHS / Compliance: lab@water-id.com

1.4. Emergency telephone number

Emergency Telephone Poison Control Center Munich
Tel.: +49 (0) 89 19 24 0
Germany
24 hours service
Languages: German, English

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Skin corrosion/irritation	Category 1 - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)

2.2. Label elements

Contains Sodium bisulfate



Signal word
Danger

Hazard statements

H314 - Causes severe skin burns and eye damage

EUH208 - Contains Chromic acid (H₂CrO₄), dipotassium salt May produce an allergic reaction.

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

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

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

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

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor

P321 - Specific treatment (see .? on this label)

Additional information

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

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	REACH registration number	EC No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Sodium bisulfate 7681-38-1	70-90	No data available	231-665-7	Eye Dam. 1 (H318)			
Hexanedioic acid 124-04-9	10-20	No data available	204-673-3	Eye Irrit. 2 (H319)			
Potassium dichromate 7778-50-9	<0.1	No data available	231-906-6	Acute Tox. 3 (H301) Acute Tox. 4 (H312) Acute Tox. 2 (H330) Skin Corr. 1B (H314) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) Muta. 1B (H340) Carc. 1B (H350) Repr. 1B (H360FD) STOT RE 1 (H372) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	STOT SE 3 :: C>=5%		

Chromic acid (H ₂ CrO ₄), dipotassium salt 7789-00-6	<0.1	No data available	232-140-5	Ox. Sol. 2 (H272) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Muta. 1B (H340) Carc. 1B (H350i) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	Skin Sens. 1 :: C>=0.5%		
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Full text of H- and EUH-phrases: see section 16Acute 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 (ATE_{mix}) for classifying a mixture based on its components

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Sodium bisulfate 7681-38-1	2490				
Hexanedioic acid 124-04-9	11000	7940	7.7		
Potassium dichromate 7778-50-9	48	1150			

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

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

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

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

Symptoms Burning sensation.

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

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

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

Suitable Extinguishing Media 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 The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapours.

5.3. Advice for firefighters

Special protective equipment 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 Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

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. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

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. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse.

General hygiene considerations

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. 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.

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 moisture. Store locked up. Keep out of the reach of children. Store away from other materials.

7.3. Specific end use(s)**Identified uses**

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
Hexanedioic acid 124-04-9	-	-	TWA: 5 mg/m ³	-	-
Potassium dichromate 7778-50-9	TWA: 0.005 mg/m ³ TWA: 0.010 mg/m ³ TWA: 0.025 mg/m ³	Respiratory sensitizer Skin sensitizer	TWA: 0.05 mg/m ³ TWA: 0.5 mg/m ³	TWA: 0.010 mg/m ³ TWA: 0.025 mg/m ³	TWA: 0.010 mg/m ³ TWA: 0.025 mg/m ³
Chromic acid (H ₂ CrO ₄), dipotassium salt 7789-00-6	TWA: 0.005 mg/m ³ TWA: 0.010 mg/m ³ TWA: 0.025 mg/m ³	-	TWA: 0.05 mg/m ³ TWA: 0.5 mg/m ³	TWA: 0.010 mg/m ³ TWA: 0.025 mg/m ³	TWA: 0.010 mg/m ³ TWA: 0.025 mg/m ³
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Hexanedioic acid 124-04-9	-	-	TWA: 5 mg/m ³	-	TWA: 5 mg/m ³
Potassium dichromate 7778-50-9	-	TWA: 0.01 mg/m ³ Ceiling: 0.1 mg/m ³	TWA: 0.001 mg/m ³	TWA: 0.01 mg/m ³ TWA: 0.025 mg/m ³ TWA: 2 mg/m ³	TWA: 0.005 mg/m ³
Chromic acid (H ₂ CrO ₄), dipotassium salt 7789-00-6	-	TWA: 0.01 mg/m ³ Ceiling: 0.1 mg/m ³	TWA: 0.001 mg/m ³	TWA: 0.01 mg/m ³ TWA: 0.025 mg/m ³ TWA: 2 mg/m ³	TWA: 0.005 mg/m ³
Chemical name	France	Germany	Germany MAK	Greece	Hungary
Hexanedioic acid 124-04-9	-	TWA: 2 mg/m ³	TWA: 2 mg/m ³ Peak: 4 mg/m ³	-	-
Potassium dichromate 7778-50-9	TWA: 0.001 mg/m ³ STEL: 0.005 mg/m ³	-	*	TWA: 0.5 mg/m ³ TWA: 0.005 mg/m ³ TWA: 0.010 mg/m ³ TWA: 0.025 mg/m ³	TWA: 0.5 mg/m ³ TWA: 0.01 mg/m ³ STEL: 2 mg/m ³
Chromic acid (H ₂ CrO ₄), dipotassium salt 7789-00-6	TWA: 0.001 mg/m ³ STEL: 0.005 mg/m ³	-	*	TWA: 0.5 mg/m ³ TWA: 0.005 mg/m ³ TWA: 0.010 mg/m ³	TWA: 0.5 mg/m ³ TWA: 0.01 mg/m ³ STEL: 2 mg/m ³

Chemical name	Ireland	Italy	Italy REL	Latvia	Lithuania
Hexanedioic acid 124-04-9	TWA: 5 mg/m ³ STEL: 15 mg/m ³	-	TWA: 5 mg/m ³	TWA: 4 mg/m ³	TWA: 4 mg/m ³
Potassium dichromate 7778-50-9	TWA: 0.005 mg/m ³ TWA: 0.01 mg/m ³ TWA: 0.025 mg/m ³ STEL: 0.15 mg/m ³ STEL: 0.03 mg/m ³ STEL: 0.075 mg/m ³	-	TWA: 0.0002 mg/m ³ STEL: 0.0005 mg/m ³ *	TWA: 0.005 mg/m ³ TWA: 0.010 mg/m ³ TWA: 0.025 mg/m ³ TWA: 0.01 mg/m ³	Sensitizer TWA: 0.005 mg/m ³ STEL: 0.015 mg/m ³
Chromic acid (H ₂ CrO ₄), dipotassium salt 7789-00-6	TWA: 0.005 mg/m ³ TWA: 0.01 mg/m ³ TWA: 0.025 mg/m ³ STEL: 0.15 mg/m ³ STEL: 0.03 mg/m ³ STEL: 0.075 mg/m ³	-	TWA: 0.0002 mg/m ³ STEL: 0.0005 mg/m ³ *	TWA: 0.005 mg/m ³ TWA: 0.010 mg/m ³ TWA: 0.025 mg/m ³ TWA: 0.01 mg/m ³	Sensitizer TWA: 0.005 mg/m ³ STEL: 0.015 mg/m ³
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Hexanedioic acid 124-04-9	-	-	-	-	STEL: 10 mg/m ³ TWA: 5 mg/m ³
Potassium dichromate 7778-50-9	-	-	TWA: 0.001 mg/m ³	TWA: 0.005 mg/m ³ STEL: 0.015 mg/m ³	TWA: 0.010 mg/m ³ TWA: 0.01 mg/m ³
Chromic acid (H ₂ CrO ₄), dipotassium salt 7789-00-6	-	-	TWA: 0.001 mg/m ³	TWA: 0.005 mg/m ³ STEL: 0.015 mg/m ³	TWA: 0.010 mg/m ³ TWA: 0.01 mg/m ³
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Hexanedioic acid 124-04-9	TWA: 5 mg/m ³	-	-	TWA: 2 mg/m ³ STEL: STEL mg/m ³	TWA: 5 mg/m ³
Potassium dichromate 7778-50-9	TWA: 0.5 mg/m ³ TWA: 0.05 mg/m ³	-	-	TWA: 0.010 mg/m ³ TWA: 0.025 mg/m ³	TWA: 0.05 mg/m ³ sensitizer
Chromic acid (H ₂ CrO ₄), dipotassium salt 7789-00-6	TWA: 0.5 mg/m ³ TWA: 0.05 mg/m ³	-	-	TWA: 0.010 mg/m ³ TWA: 0.025 mg/m ³	TWA: 0.05 mg/m ³ sensitizer
Chemical name	Sweden		Switzerland	United Kingdom	
Hexanedioic acid 124-04-9	-		TWA: 3 mg/m ³ STEL: 6 mg/m ³	-	
Potassium dichromate 7778-50-9	NGV: 0.005 mg/m ³ Bindande KGV: 0.015 mg/m ³ Sensitizer		TWA: 0.005 mg/m ³ H*	TWA: 0.01 mg/m ³ TWA: 0.025 mg/m ³ Capable of causing occupational asthma	
Chromic acid (H ₂ CrO ₄), dipotassium salt 7789-00-6	NGV: 0.005 mg/m ³ Sensitizer		TWA: 0.005 mg/m ³ H*	TWA: 0.01 mg/m ³ TWA: 0.025 mg/m ³ Capable of causing occupational asthma	

Biological occupational exposure limits

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
Potassium dichromate 7778-50-9	-	9 µg/L (blood - Ethylenediaminetetr aacetic acid not provided) 12 µg/L (urine - spontaneous urine after end of work day, at the end of a work week/end of the shift) (-)	-	5 µg/g Creatinine - urine (Chromium) - single sample at the end of the work shift	-
Chromic acid (H ₂ CrO ₄), dipotassium salt 7789-00-6	-	9 µg/L (blood - Ethylenediaminetetr aacetic acid not	-	5 µg/g Creatinine - urine (Chromium) - single sample at the	-

		provided) 12 µg/L (urine - spontaneous urine after end of work day, at the end of a work week/end of the shift) (-)		end of the work shift	
Chemical name	Denmark	Finland	France	Germany	Germany MAK
Potassium dichromate 7778-50-9	-	-	0.01 mg/g creatinine - urine (Total Chromium) - augmented during shift 0.03 mg/g creatinine - urine (Total Chromium) - end of shift at end of workweek	0.6 µg/L - BAR (end of exposure or end of shift) urine	-
Chromic acid (H ₂ CrO ₄), dipotassium salt 7789-00-6	-	-	0.01 mg/g creatinine - urine (Total Chromium) - during shift 0.03 mg/g creatinine - urine (Total Chromium) - end of shift at end of workweek	0.6 µg/L - BAR (end of exposure or end of shift) urine	-
Chemical name	Hungary	Ireland	Italy	Italy REL	
Potassium dichromate 7778-50-9	-	25 µg/L (urine - total Chromium end of shift at end of workweek) 10 µg/L (urine - total Chromium increase during shift)	-	25 µg/L - urine (Total chromium) - end of shift at end of workweek 10 µg/L - urine (Total chromium) - increase during shift	
Chromic acid (H ₂ CrO ₄), dipotassium salt 7789-00-6	-	25 µg/L (urine - total Chromium end of shift at end of workweek) 10 µg/L (urine - total Chromium increase during shift)	-	25 µg/L - urine (Total chromium) - end of shift at end of workweek 10 µg/L - urine (Total chromium) - increase during shift	

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Personal protective equipment

Eye/face protection Tight sealing safety goggles. Face protection shield.

Hand protection Wear suitable gloves. Impervious gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

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. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing

and gloves, including the inside, before re-use. 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.

Environmental exposure controls No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	tablet
Colour	white and yellow-orange
Odour	Odourless.
Odour threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flammability (solid, gas)	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
pH	1.0	None known
pH (as aqueous solution)	No data available	No information available
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
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 Acids. Bases. 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

Product Information

Inhalation	Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes.
Skin contact	Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns.
Ingestion	Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

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

Numerical measures of toxicity

Acute toxicity

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

ATEmix (oral)	2,990.50 mg/kg
ATEmix (dermal)	8,026.40 mg/kg
ATEmix (inhalation-dust/mist)	7.7838 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium bisulfate	= 2490 mg/kg (Rat)		
Hexanedioic acid	> 11000 mg/kg (Rat)	> 7940 mg/kg (Rabbit)	> 7700 mg/m ³ (Rat) 4 h
Potassium dichromate	= 48 mg/kg (Rat)	= 1150 mg/kg (Rabbit)	= 99 mg/m ³ (Rat) 4 h

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

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

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

Respiratory or skin sensitisation No information available.

Germ cell mutagenicity No information available.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic.

Chemical name	European Union
Potassium dichromate	Muta. 1B
Chromic acid (H ₂ CrO ₄), dipotassium salt	Muta. 1B

Carcinogenicity No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	European Union
Potassium dichromate	Carc. 1B
Chromic acid (H ₂ CrO ₄), dipotassium salt	Carc. 1B

Reproductive toxicity No information available.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Chemical name	European Union
Potassium dichromate	Repr. 1B

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 No information available.

11.2.2. Other information

Other adverse effects No information available.

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

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

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium bisulfate	-	-	-	EC50: =190mg/L (48h, Daphnia magna)
Hexanedioic acid	EC50: =26.6mg/L (96h, Desmodesmus subspicatus) EC50: =31.3mg/L (72h, Desmodesmus subspicatus) EC50: =35mg/L (96h, Desmodesmus subspicatus) EC50: =66mg/L (72h, Desmodesmus subspicatus)	LC50: =59.5mg/L (96h, Danio rerio) LC50: =97mg/L (96h, Pimephales promelas)	-	EC50: =85.7mg/L (48h, Daphnia magna) EC50: =88.4mg/L (48h, Daphnia magna)
Potassium dichromate	-	LC50: 113.6 - 155.7mg/L (96h, Lepomis macrochirus) LC50: 14 - 20.9mg/L (96h, Pimephales promelas) LC50: 15.41 - 30.36mg/L (96h, Pimephales promelas) LC50: 21.209 - 30.046mg/L (96h, Oryzias latipes) LC50: 23 - 41.2mg/L (96h, Poecilia reticulata) LC50: 24.81 - 34.55mg/L (96h, Poecilia reticulata) LC50: 65.6 - 137.6mg/L (96h, Lepomis macrochirus) LC50: =12.3mg/L (96h, Oncorhynchus mykiss) LC50: =320mg/L (96h, Lepomis macrochirus) LC50: >139mg/L (96h, Cyprinus carpio)	-	-

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient
Hexanedioic acid	0.081

12.4. Mobility in soil

Mobility in soil No information available.

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

Chemical name	PBT and vPvB assessment
Sodium bisulfate	PBT assessment does not apply
Hexanedioic acid	The substance is not PBT / vPvB PBT assessment does not apply
Potassium dichromate	PBT assessment does not apply

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**IATA**

14.1 UN number or ID number Not regulated
 14.2
 14.3 Transport hazard class(es) Not regulated
 14.4 Packing group Not regulated
 14.5 Environmental hazards Not applicable
 14.6 Special precautions for user
 Special Provisions None

IMDG

14.1 UN number or ID number Not regulated
 14.2
 14.3 Transport hazard class(es) Not regulated
 14.4 Packing group Not regulated
 14.5 Marine pollutant Not applicable
 14.6 Special precautions for user
 Special Provisions None No information available
 14.7 Maritime transport in bulk according to IMO instruments No information available

RID

14.1 UN number or ID number Not regulated
 14.2
 14.3 Transport hazard class(es) Not regulated
 14.4 Packing group Not regulated
 14.5 Environmental hazards Not applicable
 14.6 Special precautions for user

Special Provisions	None
ADR	
14.1 UN number or ID number	Not regulated
14.2	
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

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
Potassium dichromate 7778-50-9	RG 10, RG 10bis, RG 10ter	-
Chromic acid (H ₂ CrO ₄), dipotassium salt 7789-00-6	RG 10, RG 10bis, RG 10ter	-

Netherlands

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Carcinogens	Netherlands - List of Reproductive Toxins
Potassium dichromate	Present	Present	Fertility Category 1B Can be harmful via breastfeeding Development Category 1B
Chromic acid (H ₂ CrO ₄), dipotassium salt	Present	Present	Fertility Category 2 Development Category 1B

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 authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

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
Potassium dichromate - 7778-50-9	72. 28. 29. 30.	X
Chromic acid (H ₂ CrO ₄), dipotassium salt - 7789-00-6	72. 28. 29.	X

Persistent Organic Pollutants

Not applicable

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

Not applicable

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

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****Chemical Safety Report** No information available**SECTION 16: Other information****Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H272 - May intensify fire; oxidiser

H301 - Toxic if swallowed

H312 - Harmful in contact with skin

H314 - Causes severe skin burns and eye damage

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

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

H340 - May cause genetic defects

H350 - May cause cancer

H350i - May cause cancer by inhalation

H360FD - May damage fertility. May damage 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

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA TWA (time-weighted average)

Ceiling Maximum limit value

STEL

*

STEL (Short Term Exposure Limit)

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	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)
 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

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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