

according to Regulation UK SI 2019/758 and UK SI 2020/1577 as amended

Creation Date 08-May-2012

Revision Date 29-Sep-2023

Revision Number 9

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier	
Product Description: Cat No. : Synonyms Molecular Formula	<u>Chromosulfuric acid</u> 295510000; 295510010; 295510025 Dichromate-sulfuric acid mixture. Cr2 K2 O7 . H2 O4 S
Unique Formula Identifier (UFI)	98F3-U383-5X0X-3Q4V
1.2. Relevant identified uses of the	substance or mixture and uses advised against
Recommended Use Uses advised against	Laboratory chemicals. No Information available
1.3. Details of the supplier of the sa	fety data sheet
Company	UK entity/business name Fisher Scientific UK Bishop Meadow Road, Loughborough, Leicestershire LE11 5RG, United Kingdom EU entity/business name Thermo Fisher Scientific Janssen Pharmaceuticalaan 3a, 2440 Geel, Belgium
E-mail address	begel.sdsdesk@thermofisher.com
1.4. Emergency telephone number	For information US call: 001-800-227-6701 / Europe call: +32 14 57 52 11 Emergency Number US :001-201-796-7100 / Europe : +32 14 57 52 99 CHEMTREC Tel. No. US :001-800-424-9300 / Europe :001-703-527-3887
Poison Centre - Emergency information services	Ireland : National Poisons Information Centre (NPIC) - 01 809 2166 (8am-10pm, 7 days a week) Malta : +356 2395 2000 Cyprus : +357 2240 5611

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

Physical hazards

Based on available data, the classification criteria are not met

Chromosulfuric acid

Health hazards

Skin Corrosion/Irritation Serious Eye Damage/Eye Irritation Respiratory Sensitization Skin Sensitization Germ Cell Mutagenicity Carcinogenicity Reproductive Toxicity Specific target organ toxicity - (repeated exposure)

Environmental hazards

Chronic aquatic toxicity

Category 1 A (H314) Category 1 (H318) Category 1 (H334) Category 1 (H317) Category 1B (H340) Category 1B (H350) Category 1B (H360FD) Category 2 (H373)

Category 3 (H412)

Full text of Hazard Statements: see section 16





Signal Word

Danger

Hazard Statements

H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction

H350 - May cause cancer

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H340 - May cause genetic defects

H360FD - May damage fertility. May damage the unborn child

H373 - May cause damage to organs through prolonged or repeated exposure

H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements

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/physician

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

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

P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower P273 - Avoid release to the environment

Additional EU labelling

Restricted to professional users

2.3. Other hazards

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB)

This product does not contain any known or suspected endocrine disruptors

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Component	CAS No	EC No	Weight %	CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567
Sulfuric acid	7664-93-9	231-639-5	>90	Skin Corr. 1A (H314) Eye Dam. 1 (H318)
Potassium dichromate	7778-50-9	EEC No. 231-906-6	ca2	Ox. Sol. 2 (H272) Acute Tox. 3 (H301) Acute Tox. 2 (H330) Acute Tox. 4 (H312) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Resp. Sens. 1 (H334) Skin Sens. 1 (H37) Muta. 1B (H340) Carc. 1B (H350) Repr. 1B (H360FD) STOT RE 1 (H372) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)

Component	Specific concentration limits (SCL's)	M-Factor	Component notes
Sulfuric acid	Skin Corr. 1A :: C>=15%	-	-
	Eye Irrit. 2 :: 5%<=C<15%		
	Skin Irrit. 2 :: 5%<=C<15%		
Potassium dichromate	STOT SE 3 (H335) :: C>=5%	1	-

Note

CAS 65272-71-1: Sulfuric acid, mixt. with chromic acid (H2Cr2O7) dipotassium salt

Components	Reach Registration Number	
Sulfuric acid	01-2119458838-20	

Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Eye Contact	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
Ingestion	Do NOT induce vomiting. Call a physician or poison control center immediately.
Inhalation	If not breathing, give artificial respiration. 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. Remove to fresh

air. Immediate medical attention is required.

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.

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

Causes burns by all exposure routes. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated

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

Notes to Physician

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

CO₂, dry chemical, dry sand, alcohol-resistant foam.

Extinguishing media which must not be used for safety reasons Water.

5.2. Special hazards arising from the substance or mixture

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

Hazardous Combustion Products

Sulfur oxides, Hydrogen, Thermal decomposition can lead to release of irritating gases and vapors.

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2. Environmental precautions

Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material.

Chromosulfuric acid

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area.

Technical Rules for Hazardous Substances (TRGS) 510 Class 6.1C Storage Class (LGK) (Germany)

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

List source(s): EU - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC UK - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020. IRE - 2021 Code of Practice for the Chemical Agents Regulations, Schedule 1. Published by the Health and Safety Authority

Component	The United Kingdom	European Union	Ireland
Sulfuric acid	STEL: 0.15 mg/m ³ 15 min	TWA: 0.05 mg/m ³ (8h)	TWA: 0.05 ppm 8 hr.
	TWA: 0.05 mg/m ³ 8 hr		STEL: 0.15 ppm 15 min
Potassium dichromate	STEL: 0.03 mg/m ³ 15 min		
	STEL: 0.065 mg/m ³ 15 min		
	TWA: 0.01 mg/m ³ 8 hr		
	TWA: 0.025 mg/m ³ 8 hr		
	Carc. as Cr		
	Resp. Sens.		

Biological limit values

List source(s):

Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL) See table for values

Component	Acute effects local		Chronic effects local	Chronic effects
	(Inhalation)	systemic (Inhalation)	(Inhalation)	systemic (Inhalation)

Chromosulfuric acid

Sulfuric acid 7664-93-9 (>90)	DNEL = 0.1mg/m ³	DNEL = 0.05mg/m ³	
Potassium dichromate 7778-50-9 (ca2)	DMEL = 0.01mg/m ³	$DMEL = 0.01 mg/m^3$	

Predicted No Effect Concentration (PNEC)

See values below.

Component	Fresh water	Fresh water sediment	Water Intermittent	Microorganisms in sewage treatment	Soil (Agriculture)
Sulfuric acid 7664-93-9 (>90)	PNEC = 0.0025mg/L	PNEC = 0.002mg/kg		PNEC = 8.8mg/L	
7004-30-3 (>30)	0.0023mg/L	sediment dw			
Potassium dichromate	PNEC =	PNEC = 0.15mg/kg	PNEC =	PNEC = 0.21mg/L	PNEC =
7778-50-9 (ca2)	0.00047mg/L	sediment dw	0.00047mg/L		0.035mg/kg soil dw

Component	Marine water	Marine water sediment	Marine water intermittent	Food chain	Air
Sulfuric acid	PNEC =	PNEC =			
7664-93-9 (>90)	0.00025mg/L	0.002mg/kg			
		sediment dw			
Potassium dichromate		PNEC = 0.15mg/kg		PNEC = 17000g/kg	
7778-50-9 (ca2)		sediment dw		food	

8.2. Exposure controls

Engineering Measures

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment Eye Protection

Goggles (European standard - EN 166)

Hand Protection	Protective gloves
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Glove material Natural rubber Nitrile rubber Neoprene PVC	Breakthrough See manufactu recommendati		EU standard EN 374	Glove comments (minimum requirement)
Skin and body pro	tection Lo	ng sleeved clothing.		

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Respiratory Protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly
Large scale/emergency use	Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced Recommended Filter type: Organic gases and vapours filter Type A Brown conforming to

	EN14387
Small scale/Laboratory use	Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Recommended half mask:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141 When RPE is used a face piece Fit Test should be conducted
Environmental exposure controls	Prevent product from entering drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State	Liquid	
Appearance Odor Odor Threshold Melting Point/Range Softening Point Boiling Point/Range Flammability (liquid) Flammability (solid,gas) Explosion Limits	Red brown No information available No data available No data available No data available 330 °C / 626 °F No data available Not applicable No data available	@ 760 mmHg Liquid
Flash Point Autoignition Temperature Decomposition Temperature pH Viscosity Water Solubility Solubility in other solvents	No information available No data available No data available < 1 No data available soluble in water (caution ! Development of heat) No information available	Method - No information available
Partition Coefficient (n-octanol/wate		
Vapor Pressure Density / Specific Gravity	No data available 1.840	
Bulk Density	Not applicable	Liquid
Vapor Density	5.11	(Air = 1.0)
Particle characteristics	Not applicable (liquid)	
9.2. Other information		

Molecular Formula

Chromosulfuric acid

Cr2 K2 O7 . H2 O4 S

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

None known, based on information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

10.4. Conditions to avoid

Chromosulfuric acid

Incompatible products. Excess heat.

10.5. Incompatible materials

Organic materials. Bases. Water. Metals.

10.6. Hazardous decomposition products

Sulfur oxides. Hydrogen. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 11: TOXICOLOGICAL INFORMATION

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

Product Information

(a) acute toxicity;

OralBased on available data, the classification criteria are not metDermalBased on available data, the classification criteria are not metInhalationBased on available data, the classification criteria are not met

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sulfuric acid	2140 mg/kg (Rat)	-	LC50 = 0.375 mg/L (Rat) 4 h
Potassium dichromate	130 mg/kg (Rat)	1150 mg/kg (Rabbit)	0.09 mg/L/4h (Rat)

- (b) skin corrosion/irritation; Category 1 A
- (c) serious eye damage/irritation; Category 1
- (d) respiratory or skin sensitization;
Respiratory
SkinCategory 1
Category 1
May cause sensitization by skin contact(e) germ cell mutagenicity;Category 1B
May cause heritable genetic damage

(f) carcinogenicity; Category 1B

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

Component	EU	UK	Germany	IARC
Sulfuric acid				Group 1
Potassium dichromate	Carc Cat. 1B			Group 1

(g) reproductive toxicity;	Category 1B
Reproductive Effects	May impair fertility. May cause harm to the unborn child.
(h) STOT-single exposure;	No data available

(i) STOT-repeated exposure;	Category 2
Target Organs	Eyes, Skin, Respiratory system, Blood, Kidney, Liver, Teeth.
(j) aspiration hazard;	No data available
Other Adverse Effects	The toxicological properties have not been fully investigated.
Symptoms / effects,both acute and delayed	Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated.

11.2. Information on other hazards

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Endocrine Disrupting Properties Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.
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SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity Ecotoxicity effects

Chromosulfuric acid

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Do not empty into drains. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Component	Freshwater Fish	Water Flea	Freshwater Algae
Sulfuric acid	LC50: > 500 mg/L, 96h static (Brachydanio rerio)	EC50: 29 mg/L/24h	-
Potassium dichromate	LC50: 14 - 20.9 mg/L, 96h static (Pimephales promelas) LC50: 24.81 - 34.55 mg/L, 96h semi-static (Poecilia reticulata) LC50: 23 - 41.2 mg/L, 96h static (Poecilia reticulata) LC50: 15.41 - 30.36 mg/L, 96h flow-through (Pimephales promelas) LC50: > 139 mg/L, 96h static (Cyprinus carpio) LC50: 113.6 - 155.7 mg/L, 96h flow-through (Lepomis macrochirus) LC50: = 320 mg/L, 96h (Lepomis macrochirus) LC50: 65.6 - 137.6 mg/L, 96h static (Lepomis macrochirus) LC50: = 12.3 mg/L, 96h semi-static (Oncorhynchus mykiss) LC50: 21.209 - 30.046 mg/L, 96h semi-static (Oryzias latipes)	EC50: 1.4 mg/L 24h	

Component	Microtox	M-Factor
Sulfuric acid	-	
Potassium dichromate		1

12.2. Persistence and degradability Persistence Degradation in sewage treatment plant	Soluble in water, Persistence is unlikely, based on information available. Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.
12.3. Bioaccumulative potential	Bioaccumulation is unlikely
<u>12.4. Mobility in soil</u>	The product is water soluble, and may spread in water systems Will likely be mobile in the environment due to its water solubility. Highly mobile in soils
12.5. Results of PBT and vPvB assessment	Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB).
<u>12.6. Endocrine disrupting</u> properties Endocrine Disruptor Information	This product does not contain any known or suspected endocrine disruptors
12.7. Other adverse effects Persistent Organic Pollutant Ozone Depletion Potential	This product does not contain any known or suspected substance This product does not contain any known or suspected substance

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues/Unused Products	Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.
Contaminated Packaging	Dispose of this container to hazardous or special waste collection point.
European Waste Catalogue (EWC)	According to the European Waste Catalog, Waste Codes are not product specific, but application specific.
Other Information	Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Large amounts will affect pH and harm aquatic organisms. Solutions with low pH-value must be neutralized before discharge. Do not let this chemical enter the environment.

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

<u>14.1. UN number</u> 14.2. UN proper shipping name	UN2240 CHROMOSULPHURIC ACID
14.3. Transport hazard class(es)	8
14.4. Packing group	Ι

<u>ADR</u>

<u>14.1. UN number</u>

UN2240

Chromosulfuric acid

14.2. UN proper shipping name	CHROMOSULPHURIC ACID
14.3. Transport hazard class(es)	8
14.4. Packing group	Ι

<u>IATA</u>

<u>14.1. UN number</u> <u>14.2. UN proper shipping name</u> <u>14.3. Transport hazard class(es)</u> <u>14.4. Packing group</u>	UN2240 CHROMOSULPHURIC ACID 8 I
14.5. Environmental hazards	No hazards identified
14.6. Special precautions for user	No special precautions required.
14.7. Maritime transport in bulk according to IMO instruments	Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

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

International Inventories

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
Sulfuric acid	7664-93-9	231-639-5	-	-	Х	Х	KE-32570	Х	Х
Potassium dichromate	7778-50-9	231-906-6	-	-	Х	Х	KE-29094	Х	Х

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Sulfuric acid	7664-93-9	Х	ACTIVE	Х	-	Х	Х	Х
Potassium dichromate	7778-50-9	X	ACTIVE	Х	-	X	Х	Х

Legend: X - Listed '-' - Not Listed KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Sulfuric acid	7664-93-9	-	Use restricted. See item 75. (see link for restriction details)	-
Potassium dichromate	7778-50-9	Carcinogenic Category 1B, Mutagenic Category 1B, Toxic for reproduction Category 1B Article 57 Application date: March 21, 2016 Sunset date: September 21, 2017 Exemption - None	Use restricted. See item 72. (see link for restriction details) Use restricted. See item 28. (see link for restriction details) Use restricted. See item 29. (see link for restriction details)	SVHC Candidate list - 231-906-6 - Carcinogenic, Article 57a; Mutagenic, Article 57b; Toxic for reproduction, Article 57c

Chromosulfuric acid

Use restricted. See item
30.
(see link for restriction
details)
Use restricted. See item
75.
(see link for restriction
details)
Use restricted. See item
47.
(see link for restriction
details)

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

REACH links

https://echa.europa.eu/authorisation-list https://echa.europa.eu/substances-restricted-under-reach https://echa.europa.eu/candidate-list-table

Seveso III Directive (2012/18/EC)

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
Sulfuric acid	7664-93-9	Not applicable	Not applicable
Potassium dichromate	7778-50-9	Not applicable	Not applicable

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)? Not applicable

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 .

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Dir 92/85/EC on the protection of pregnant and breastfeeding women at work

Take note of Dir 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations

National Regulations

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

WGK Classification

Water endangering class = 3 (self classification)

Component	Germany - Water Classification (AwSV)	Germany - TA-Luft Class
Sulfuric acid	WGK1	
Potassium dichromate	WGK3	

Component	France - INRS (Tables of occupational diseases)
Potassium dichromate	Tableaux des maladies professionnelles (TMP) - RG 10,RG 10bis,RG 10ter

Chromosulfuric acid

Component	Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81)	Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC)	Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure
Sulfuric acid 7664-93-9 (>90)	Prohibited and Restricted Substances		
Potassium dichromate 7778-50-9 (ca2)	Prohibited and Restricted Substances		

15.2. Chemical safety assessment

Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H272 - May intensify fire; oxidizer

H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H340 - May cause genetic defects

H350 - May cause cancer

H360FD - May damage fertility. May damage the unborn child

H372 - Causes damage to organs through prolonged or repeated exposure

H373 - May cause damage to organs through prolonged or repeated exposure

H410 - Very toxic to aquatic life with long lasting effects

H412 - Harmful to aquatic life with long lasting effects

H301 - Toxic if swallowed

H312 - Harmful in contact with skin

H330 - Fatal if inhaled

H400 - Very toxic to aquatic life

H360Fd - May damage fertility. Suspected of damaging the unborn child

Legend

CAS - Chemical Abstracts Service Inventorv EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances/EU List of Notified Chemical Substances Substances List **PICCS** - Philippines Inventory of Chemicals and Chemical Substances **ENCS** - Japanese Existing and New Chemical Substances **IECSC** - Chinese Inventory of Existing Chemical Substances AICS - Australian Inventory of Chemical Substances **KECL** - Korean Existing and Evaluated Chemical Substances NZIOC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit ACGIH - American Conference of Governmental Industrial Hygienists **DNEL** - Derived No Effect Level **RPE** - Respiratory Protective Equipment LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

OECD - Organisation for Economic Co-operation and Development BCF - Bioconcentration factor

Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

TSCA - United States Toxic Substances Control Act Section 8(b)

TWA - Time Weighted Average IARC - International Agency for Research on Cancer Predicted No Effect Concentration (PNEC) LD50 - Lethal Dose 50% EC50 - Effective Concentration 50% POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association MARPOL - International Convention for the Prevention of Pollution from Ships

ATE - Acute Toxicity Estimate

VOC - (Volatile Organic Compound)

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:Physical hazardsOn basis of test dataHealth HazardsCalculation methodEnvironmental hazardsCalculation method

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Creation Date	08-May-2012
Revision Date	29-Sep-2023
Revision Summary	Not applicable.

This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.

Disclaimer

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End of Safety Data Sheet