

Address	Im Hackacker 15, CH-8902 Urdorf, Switzerland
Mail address	P.O. Box, CH-8902 Urdorf, Switzerland
Phone	+41-44-729 62 11
Fax	+41-44-729 66 36
Bank	Credit Suisse, 8070 Zurich, Clearing 4835
Account no.	370501-21-90 CHF/IBAN CH71 0483 5037 0501 2109 0

www.mt.com/pro

SAFETY DATA SHEET

according to Regulation (EU) No. 453/2010

Buffer Solution pH 1.679

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product code 51319049, 51319000, 52118085

Synonyms None.

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

Use of the Substance/Preparation Laboratory chemicals

1.3. Details of the supplier of the safety data sheet

Company/Undertaking Identification Mettler-Toledo AG
Process Analytics
Im Hackacker 15
CH-8902 Urdorf
Schweiz
Tel: +41-44-729 62 11
Fax: +41-44-729 66 36
Email: process.hotline@mt.com

1.4. Emergency telephone number +1-800-535 50 53 (Info Trac, 24 hrs)

Revision Date 27.05.2013

Version 6

2. Hazards identification

Causes severe skin burns and eye damage.

2.1. Classification of the substance or mixture

NFPA Ratings (Scale 0-4):

HEALTH=3

FLAMMABILITY=0

REACTIVITY=1

SPECIAL=ACID

HMIS Ratings (Scale: 0=Minimal 1=Slight 2=Moderate

3=Serious 4=Severe):

HEALTH=3

FLAMMABILITY=0

REACTIVITY=1

PROT. EQUIPMENT=C (Safety Glasses, Gloves, Protective apron)

Classification according to Regulation (EC) No. 1272/2008 (GHS/CLP)

Skin corrosion/irritation, Cat. 1A, H314

Additional information

For the full text of the phrases mentioned in this Section, see Section 16.

2.2. Label elements



Signal Word

Hazard Statements

Precautionary statements

Danger

H314: Causes severe skin burns and eye damage.

P260: Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

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): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ 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/ physician.

Additional advice

None.

GHS product identifier

Potassium tetraoxalate, CAS-No. 6100-20-5

2.3. Other hazards

No information available.

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3. Composition/information on ingredients

Chemical characterization Buffer solution.

Components		GHS Classification		CAS	REACH No.
Deionised water	95% - 99%				
Potassium tetraoxalate	1% - 2.5%	Acute Tox. 4 H312, Acute Tox. 4 H302		6100-20-5	

For the full text of the phrases mentioned in this Section, see Section 16.

Hazardous impurities None known.

4. First aid measures

4.1. Description of first aid measures

Inhalation Move to fresh air in case of accidental inhalation of vapours or decomposition products. Call a physician or Poison Control Center immediately.

Skin contact Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Immediate medical treatment necessary as untreated skin corrosions are slow and bad healing wounds.

Eye contact Rinse thoroughly with plenty of water, also under the eyelids. Consult an ophthalmologist.

Ingestion Rinse mouth. Immediately give large quantities of water to drink. Induce vomiting if person is conscious. Obtain medical attention.

4.2. Most important symptoms and effects, both acute and delayed None known.

4.3. Indication of any immediate medical attention and special treatment needed None known.

5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use dry chemical, CO₂, water spray or alcohol foam.

Extinguishing media which must not be used for safety reasons None.

5.2. Special hazards arising from the substance or mixture The product is not flammable. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

5.3. Advice for firefighters

Special protective equipment for firefighters Standard procedure for chemical fires. In the event of fire, wear self contained breathing apparatus. Wear protective suit.

Specific methods No special measures required.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel Use personal protective equipment. Sweep up to prevent slipping hazard. Ensure adequate ventilation.

Advice for emergency responders Handle in accordance with good industrial hygiene and safety practice.

6.2. Environmental precautions Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up Soak up with inert absorbent material. Keep in suitable and closed containers for disposal.

6.4. Reference to other sections See chapter 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling Wear personal protective equipment. Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities Store at room temperature in the original container.

7.3. Specific end use(s) No information available.

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8. Exposure controls/personal protection

8.1. Control parameters

Exposure limit(s) No data is available on the product itself.

8.2. Exposure controls

Occupational exposure controls Avoid contact with skin, eyes and clothing.

Personal protection equipment

Respiratory protection In case of good ventilation no personal respiratory protective equipment required.

Hand protection The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it. Hydrofluoric acid-resistant and solvent-resistant gloves (gloves made of VITON*).

Eye protection Safety glasses with side-shields conforming to EN 166.

Skin and body protection Long sleeved clothing.

Thermal hazards No special measures required.

Environmental exposure controls Prevent product from entering surface water or sewage.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form Liquid.
Colour Colourless.
Odour None.
Odour Threshold No information available.

pH: 1.7
Melting point/range: No information available.
Boiling point/range: No information available.
Flash point: No information available.

Evaporation Rate: No information available.
Flammability: No information available.
Explosion limits: No information available.
Vapour pressure: No information available.
Vapor density: No information available.
Relative density: No information available.
Water solubility: completely miscible
Partition coefficient (n-octanol/water): No information available.

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Autoignition temperature:	No information available.
Decomposition temperature:	No information available.
Viscosity:	No information available.
Combustion/explosion hazards:	not hazardous
Oxidizing properties:	None

9.2. Other information

10. Stability and reactivity

10.1. Reactivity	No information available.
10.2. Chemical stability	Stable at normal conditions.
10.3. Possibility of hazardous reactions	No information available.
10.4. Conditions to avoid	Direct sources of heat.
10.5. Incompatible materials	Oxidizing agents. Reducing agents. Strong bases.
10.6. Hazardous decomposition products	None reasonably foreseeable.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity	No data is available on the product itself.
Skin corrosion/irritation	Causes burns. May cause irritation of the mucous membranes. May irritate skin.
Serious eye damage/eye irritation	Risk of serious damage to eyes.
Respiratory / Skin Sensitisation	No data available.
Carcinogenicity	No data available.
Germ cell mutagenicity	No data available.
Reproductive toxicity	No data available.
Specific target organ toxicity (single exposure)	No data available.
Specific target organ toxicity (repeated exposure)	No data available.
Aspiration hazard	No data available.

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Human experience	No data available.
Information on likely routes of exposure	dermal
Symptoms related to the physical, chemical and toxicological characteristics	Nausea. Vomiting. Irritating to skin and mucous membranes. Cough. Blood disorder may occur after ingestion. Kidney injury may occur. Circulatory collapse.

12. Ecological information

12.1. Toxicity	No information available. May change pH of waters.
12.2. Persistence and degradability	No data available.
12.3. Bioaccumulative potential	No data available.
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	No information available.
12.6. Other adverse effects	No information available.

13. Disposal considerations

13.1. Waste treatment methods	
Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Dispose of as unused product.

14. Transport information

ADR/RID	Proper shipping name CORROSIVE LIQUID, N.O.S. (Potassium tetraoxalate) UN No 1760. Class 8. Packing group III. ADR/RID-Labels 8. Classification code C9. Risk No. 80. Limited quantity 5 L. Tunnel code E
IMO	Proper shipping name Corrosive liquid, n.o.s. (Potassium tetraoxalate) UN No 1760. Class 8. Packing group III. ADR/RID-Labels 8. Limited quantity 5 L. EmS F-A, S-B. Marine Pollutant no
ICAO	Proper shipping name Corrosive liquid, n.o.s. (Potassium tetraoxalate) UN No 1760. Class 8. Packing group III. Packing instruction (passenger aircraft): 852 (5 L). Packing instruction (LQ): Y841 (1 L). Packing instruction (cargo aircraft): 856 (60 L).
Inland navigation ADN	Proper shipping name CORROSIVE LIQUID, N.O.S. (Potassium tetraoxalate) UN No 1760. Class 8. Packing group III. ADN danger 8+(N1, N2, N3, CMR, F oder S).
Further Information	None.

15. Regulatory information

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

Regulatory Information	NFPA Ratings (Scale 0-4): HEALTH=3 FLAMMABILITY=0 REACTIVITY=1 SPECIAL=ACID HMIS Ratings (Scale: 0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe): HEALTH=3 FLAMMABILITY=0 REACTIVITY=1 PROT. EQUIPMENT=C (Safety Glasses, Gloves, Protective apron) The product is classified and labelled according to Regulation (EC) No. 1272/2008 (GHS/CLP).
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15.2. Chemical safety assessment	Not required.
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16. Other information

Key or legend to abbreviations and acronyms	None.
Key literature references and sources for data	Information taken from reference works and the literature.
Classification procedure	Calculation method.
Full text of phrases referred to under sections 2 and 3	H302: Harmful if swallowed. H312: Harmful in contact with skin. H314: Causes severe skin burns and eye damage.
Disclaimer	The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release. It is not to be considered a warranty or quality specification.