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Safety Data Sheet according to 1907/2006/EC, Article 31

Printing date 16.07.2010 Revision: 16 07 2010

1 Identification of substance

Product details

Trade name Potassium trihydrogen dioxalate dihydrate

Stock number:

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG Benzstrasse 3 D-76185 Karlsruhe / Germany

Informing department: Emergency information:

Product safety department. Giftnotruf Universität Mainz / Poison Information Center Mainz www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240

R 21/22 Harmful in contact with skin and if swallowed.

2 Hazards identification

Hazard designation:

Prevention: Response:

Xn Harmful

Information pertaining to particular dangers for man and environment GHS label elements

H302 - Harmful if swallowed. H312 - Harmful in contact with skin.

Warning

P301 - Haffriul in contact with skin.

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

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P322 Specific measures (see on this label).

Disposal: P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical characterization: Designation: (CAS#)

Potassium trihydrogen dioxalate dihydrate (CAS# 6100-20-5)

Identification number(s): EINECS Number:

Index number:

607-007-00-3

4 First aid measures

After skin contact

After eye contact After swallowing

General information

After inhalation

Instantly remove any clothing soiled by the product.
In case of irregular breathing or respiratory arrest provide artificial respiration.
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
Seek immediate medical advice.
Instantly wash with water and soap and rinse thoroughly.

Seek immediate medical advice.
Rinse opened eye for several minutes under running water. Then consult doctor.
Do not induce vomiting; instantly call for medical help.
Seek immediate medical advice.

5 Fire fighting measures

Suitable extinguishing agents Special hazards caused by the material, its products of combustion or flue gases:

Protective equipment:

CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

Can be released in case of fire: Carbon monoxide and carbon dioxide
Wear self-contained breathing apparatus.

Wear full protective suit.

6 Accidental release measures

Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

Measures for cleaning/collecting:

Ensure adequate ventilation

Do not allow material to be released to the environment without proper governmental permits.

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

See Section 7 for information on safe handling

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

7 Handling and storage

Additional information:

Handling Information for safe handling:

Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke

Storage Requirements to be met by storerooms and

storage facility: Further information about storage

Information about storage in one common

conditions:

No special requirements.

Store away from oxidizing agents.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

Store in a locked cabinet or with access restricted to technical experts or their assistants.

8 Exposure controls and personal protection

Additional information about design of

technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with critical values that require monitoring at the workplace: Additional information:

Personal protective equipment General protective and hygienic measures

Not required. No data

The usual precautionary measures should be adhered to in handling the chemicals. Keep away from foodstuffs, beverages and food.

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Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

Use breathing protection with high concentrations.

Check protective gloves prior to each use for their proper condition.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. Breathing equipment: Protection of hands: Material of gloves

Eye protection: Safety glasses Face protection Protective work clothing. **Body protection:**

9 Physical and chemical properties:

General Information	
Form: Smell:	Crystalline powder Not determined
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	Not determined Not determined Not determined
Flash point:	Not applicable
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Danger of explosion:	Product is not explosive.
Critical values for explosion: Lower: Upper:	Not determined Not determined
Steam pressure:	Not determined
Density	Not determined

No decomposition if used and stored according to specifications.

10 Stability and reactivity

Thermal decomposition / conditions to be

avoided:

Materials to be avoided:

Oxidizing agents Dangerous reactions:
Dangerous products of decomposition: No dangerous reactions known Carbon monoxide and carbon dioxide

11 Toxicological information

Acute toxicity: Primary irritant effect: on the skin:

on the eye:

Irritant effect.

Sensitization

Additional toxicological information:

Irritant for skin and mucous membranes.

No sensitizing effect known.

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or

ACGIH.

12 Ecological information:

Additional ecological information: General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Do not allow material to be released to the environment without proper governmental permits.

13 Disposal considerations

Product:

Recommendation

Consult state, local or national regulations for proper disposal. Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations.

Uncleaned packagings: Recommendation: Disposal must be made according to official regulations.

14 Transport information

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)



ADR/RID-GGVS/E Class: 6.1 (T5) Toxic substances.

Kemler Number: UN-Number: 60 3288 Packaging group:

6.1 3288 TOXIC SOLID, INORGANIC, N.O.S. (Potassium trihydrogen dioxalate dihydrate) Label

Designation of goods: Limited quantities (LQ) Transport category Ē

Tunnel restriction code Maritime transport IMDG/GGVSea:



IMDG/GGVSea Class: UN Number: 6.1 3288 Label Packaging group: Marine pollutant: 6.1 III

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Correct technical name: TOXIC SOLID, INORGANIC, N.O.S. (Potassium trihydrogen dioxalate dihydrate)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: **UN/ID Number:** Label

6.1
3288
6.1
III
TOXIC SOLID, INORGANIC, N.O.S. (Potassium trihydrogen dioxalate dihydrate) Packaging group: Correct technical name:

UN "Model Regulation":

UN3288, TOXIC SOLID, INORGANIC, N.O.S., 6.1, III

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of

product:

Xn Harmful

Risk phrases: 21/22 Harmful in contact with skin and if swallowed.

Safety phrases: 24/25 Avoid contact with skin and eyes.

National regulations

Employment restrictions concerning young persons must be observed. For use only by technically qualified individuals. Information about limitation of use:

Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing data specification sheet:

Abbreviations and acronyms:

Health, Safety and Environmental Department.

Zachariah Holt

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Réglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

GB