

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

Revision: 13.07.2010

Printing date 13.07.2010

1 Identification of substance**Product details****Trade name****Potassium fluorosulfate****Stock number:**

40322

Manufacturer/Supplier:Alfa Aesar GmbH & Co.KG
Benzstrasse 3
D-76185 Karlsruhe / GermanyE-mail: gcat@matthey.com
www.alfa-chemcat.com**Informing department:**

Product safety department.

Emergency information:Giftnotruf Universität Mainz / Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240**2 Hazards identification****Hazard designation:**

C Corrosive

Information pertaining to particular dangers for man and environmentR 22 Harmful if swallowed.
R 34 Causes burns.**GHS label elements****Danger**

H314 - Causes severe skin burns and eye damage.

**Warning**

H302 - Harmful if swallowed.

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

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.

Prevention:**Response:****Storage:**

P405 Store locked up.

Disposal:

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

3 Composition/information on ingredients**Chemical characterization:****Designation: (CAS#)**

Potassium fluorosulfate (CAS# 13455-22-6), 100%

4 First aid measures**General information**

Instantly remove any clothing soiled by the product.

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contactSeek immediate medical advice.
Instantly wash with water and soap and rinse thoroughly.**After eye contact**Seek immediate medical advice.
Rub in Ca-gluconate solution or Ca-gluconate gel immediately.**After swallowing**

Rinse opened eye for several minutes under running water. Then consult doctor.

Seek immediate medical advice.

5 Fire fighting measures**Suitable extinguishing agents**

Use fire fighting measures that suit the environment.

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

Can be released in case of fire:

Hydrogen fluoride (HF)

Sulphur oxides (SOx)

Protective equipment:

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:

Ensure adequate ventilation

Measures for cleaning/collecting:

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

Use neutralizing agent.

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

Additional information:

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**Handling****Information for safe handling:**

Handle under dry protective gas.

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:

The product is not flammable

Storage Requirements to be met by storerooms and containers:

No special requirements.

Information about storage in one common storage facility:

Do not store together with acids.

Store away from water.

Further information about storage conditions:

Store under dry inert gas.

Protect from humidity and keep away from water.

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.

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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:

Fluorides (as F)
mg/m³

ACGIH TLV	2.5
Austria MAK	2.5
Belgium TWA	2.5
Finland TWA	2.5
France TWA	2.5
Germany MAK	2.5
Hungary TWA	1; 2-STEL
Netherlands MAC-K	3.5
Norway TWA	0.6
Poland TWA	1; 3-STEL
Sweden NGV	2
Switzerland MAK-W	1.5; 3-KZG-W
United Kingdom TWA	2.5
Russia TWA	2
Denmark TWA	2.5
USA PEL	2.5

Additional information:

No data

Personal protective equipment**General protective and hygienic measures**

The usual precautionary measures should be adhered to in handling the chemicals.

Keep away from foodstuffs, beverages and food.

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.

Breathing equipment:

Safety glasses

Eye protection:

Tightly sealed safety glasses.

Full face protection

Face protection

Body protection:

Protective work clothing.

9 Physical and chemical properties:**General Information**

Form:	Powder
Colour:	White
Smell:	Not determined

Change in condition

Melting point/Melting range:	311°C
Boiling point/Boiling range:	Decomposes
Sublimation temperature / start:	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:	Not determined
Upper:	Not determined

Steam pressure: Not determined**Density:** Not determined**Solubility in / Miscibility with Water:**

Hydrolyzes

10 Stability and reactivity**Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

Materials to be avoided:

Acids

Water/moisture

Dangerous reactions:

No dangerous reactions known

Dangerous products of decomposition:

Hydrogen fluoride (HF)

Sulphur oxides (SO_x)**11 Toxicological information****Acute toxicity:****Primary irritant effect: on the skin:**

Corrosive effect on skin and mucous membranes.

Irritant for skin and mucous membranes.

on the eye:

Strong corrosive effect.

Irritant effect.

Sensitization:

No sensitizing effect known.

Additional toxicological information:

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

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.

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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: 8 (CT2) Corrosive substances.
Kemler Number: 86
UN-Number: 2923
Packaging group: II
Label: 8+6.1
Designation of goods: 2923 CORROSIVE SOLID, TOXIC, N.O.S. (Potassium fluorosulfate)
Limited quantities (LQ) LQ23
Transport category 2
Tunnel restriction code E

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 8
UN Number: 2923
Label: 8+6.1
Packaging group: II
Marine pollutant: No
Correct technical name: CORROSIVE SOLID, TOXIC, N.O.S. (Potassium fluorosulfate)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 8
UN/ID Number: 2923
Label: 8+6.1
Packaging group: II
Correct technical name: CORROSIVE SOLID, TOXIC, N.O.S. (Potassium fluorosulfate)

UN "Model Regulation":

UN2923, CORROSIVE SOLID, TOXIC, N.O.S., 8 (6.1), II

15 Regulatory information**Designation according to EC guidelines:****Code letter and hazard designation of product:**

C Corrosive

Risk phrases:22 Harmful if swallowed.
34 Causes burns.**Safety phrases:**26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).**National regulations****Information about limitation of use:**For use only by technically qualified individuals.
Employment restrictions concerning young persons must be observed.**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: Health, Safety and Environmental Department.**Contact:** Zachariah Holt**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement 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: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service (division of the American Chemical Society)