

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

Revision: 14.07.2010

Printing date 14.07.2010

1 Identification of substance**Product details****Trade name****Iron(III) isopropoxide****Stock number:**

44873

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:**Xi Irritant
F Highly flammable**Information pertaining to particular dangers for man and environment**R 11 Highly flammable.
R 36/37/38 Irritating to eyes, respiratory system and skin.**GHS label elements****Warning**

H228 - Flammable solid.

**Warning**H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280 Wear protective gloves.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.**Prevention:****Response:****3 Composition/information on ingredients****Chemical characterization:****Designation: (CAS#)**

Iron(III) isopropoxide (CAS# 14995-22-3)

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

Seek immediate medical advice.

5 Fire fighting measures**Suitable extinguishing agents**

CO2, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents

Water.

Special hazards caused by the material, its products of combustion or flue gases:Can be released in case of fire:
Carbon monoxide and carbon dioxide
Metal oxide**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
Keep away from ignition sources
Do not allow material to be released to the environment without proper governmental permits.**Measures for cleaning/collecting:**Use neutralizing agent.
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
Keep away from ignition sources.**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:**Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.**Storage Requirements to be met by storerooms and containers:**
Information about storage in one common storage facility:Store in cool location.
Store away from oxidizing agents.
Store away from water.
Do not store together with acids.**Further information about storage conditions:**Store under dry inert gas.
This product is moisture sensitive.
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Protect from humidity and keep away from water.

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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:	Not required.
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.
Breathing equipment:	Use breathing protection with high concentrations.
Protection of hands:	Check protective gloves prior to each use for their proper condition.
Material of gloves	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.
Eye protection:	Safety glasses Tightly sealed safety glasses. Full face protection
Body protection:	Face protection Protective work clothing.

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

Form:	Powder Chunks
Colour:	Brown
Smell:	Not determined

Change in condition	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined

Flash point:	Not applicable
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Inflammability (solid, gaseous)	Highly flammable.
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Ignition temperature:	Not determined
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Decomposition temperature:	Not determined
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Critical values for explosion:	
Lower:	Not determined
Upper:	Not determined

Steam pressure:	Not determined
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Density	Not determined
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10 Stability and reactivity

Thermal decomposition / conditions to be avoided:	No decomposition if used and stored according to specifications.
Materials to be avoided:	Oxidizing agents Water/moisture Acids
Dangerous reactions:	No dangerous reactions known
Dangerous products of decomposition:	Carbon monoxide and carbon dioxide Metal oxide

11 Toxicological information

Acute toxicity:	
Primary irritant effect:	
on the skin:	Irritant for skin and mucous membranes.
on the eye:	Irritant effect.
Sensitization:	No sensitizing effect known.
Additional toxicological information:	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:	4.1 (F3) Flammable solids, self-reactive substances and solid desensitised explosives.
Kemler Number:	40

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UN-Number: 3181
 Packaging group: III
 Label: 4.1
 Designation of goods: 3181 METAL SALTS OF ORGANIC COMPOUNDS, FLAMMABLE, N.O.S. (Iron(III) isopropoxide)
 Limited quantities (LQ): LQ9
 Transport category: 3
 Tunnel restriction code: E

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 4.1
 UN Number: 3181
 Label: 4.1
 Packaging group: III
 EMS Number: F-A,S-I
 Marine pollutant: No
 Segregation groups: Heavy metals and their salts (including their organometallic compounds)
 Correct technical name: METAL SALTS OF ORGANIC COMPOUNDS, FLAMMABLE, N.O.S. (Iron(III) isopropoxide)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 4.1
 UN/ID Number: 3181
 Label: 4.1
 Packaging group: III
 Correct technical name: METAL SALTS OF ORGANIC COMPOUNDS, FLAMMABLE, N.O.S. (Iron(III) isopropoxide)

UN "Model Regulation":

UN3181, METAL SALTS OF ORGANIC COMPOUNDS, FLAMMABLE, N.O.S., 4.1, III

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

Xi Irritant
 F Highly flammable

Risk phrases:

11 Highly flammable.
 36/37/38 Irritating to eyes, respiratory system and skin.

Safety phrases:

16 Keep away from sources of ignition - No smoking.
 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 37 Wear suitable gloves.

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)