

# Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 13.07.2010

Revision: 13.07.2010

## 1 Identification of substance

### Product details

Trade name

***Marcasite, naturally occurring mineral***

Stock number:

43363

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

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

R 36/37/38 Irritating to eyes, respiratory system and skin.

**Warning**

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P405 Store locked up.

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

Prevention:

Response:

Storage:

Disposal:

## 3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#)

Iron sulfide (CAS# 12068-85-8): 100%

Identification number(s):

235-106-8

EINECS Number:

## 4 First aid measures

After inhalation

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

After skin contact

Seek immediate medical advice.

Instantly wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

After eye contact

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

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:

Sulphur oxides (SOx)

Hydrogen sulphide

Wear self-contained breathing apparatus.

Wear full protective suit.

Protective equipment:

## 6 Accidental release measures

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources

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

Ensure adequate ventilation.

Keep away from ignition sources.

See Section 7 for information on safe handling

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

Measures for environmental protection:

Measures for cleaning/collecting:

Additional information:

## 7 Handling and storage

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  
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:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

## 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.

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Breathing equipment:

Eye protection:

Body protection:

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.  
 Safety glasses  
 Face protection  
 Protective work clothing.

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

**Form:** Solid in various forms:  
**Colour:** Dark  
**Smell:** Like rotten eggs

**Change in condition**  
**Melting point/Melting range:** 450°C  
**Boiling point/Boiling range:** Not determined  
**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 at 20°C** 4.87 g/cm<sup>3</sup>

**Solubility in / Miscibility with Water:** Insoluble

**10 Stability and reactivity**

Thermal decomposition / conditions to be avoided:

Materials to be avoided:

No decomposition if used and stored according to specifications.

Acids

Water/moisture

Dangerous reactions:

Reacts with acids forming hydrogen sulphide

Dangerous products of decomposition:

Sulphur oxides (SO<sub>x</sub>)

Hydrogen sulphide

**11 Toxicological information**

Acute toxicity:

Primary irritant effect:

on the skin:

on the eye:

Sensitization:

Additional toxicological information:

Irritant for skin and mucous membranes.

Irritant effect.

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:

Generally not hazardous for water.

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:

None

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class:

None

Marine pollutant:

No

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class:

None

Transport/Additional information:

Not dangerous according to the above specifications.

**15 Regulatory information**

Designation according to EC guidelines:

Code letter and hazard designation of product:



Xi Irritant

Risk phrases:

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

Safety phrases:

7 Keep container tightly closed.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

33 Take precautionary measures against static discharges.

37 Wear suitable gloves.

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43 In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.

**National regulations****Information about limitation of use:**Employment restrictions concerning young persons must be observed.  
For use only by technically qualified individuals.**Water hazard class:**

Generally not 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  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)

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