

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*****Magnesium aluminum zirconium oxide*****Stock number:**

36368

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:**

void

Information pertaining to particular dangers for man and environment

Not applicable

GHS label elements

Void

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

Magnesium aluminum zirconium oxide (CAS# 53169-11-2); 100%

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.

After eye contact

Seek immediate medical advice.

After swallowing

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

Seek medical treatment.

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:

Metal oxide

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.

Measures for environmental protection:

Ensure adequate ventilation

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

Measures for cleaning/collecting:

Collect mechanically.

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:**

Keep containers tightly sealed.

Store in cool, dry place in tightly closed containers.

No special precautions necessary if used correctly.

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 with interhalogens.

Do not store together with oxidizing and acidic materials.

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:

Aluminum oxide

mg/m³

ACGIH TLV 10; Not classified as a human carcinogen

Austria MAK 5 (dust)

Belgium TWA 10

Denmark TWA 10(AI)

France VME 10

Germany MAK 6

Korea TLV Not classified as a human carcinogen

Norway TWA 2(AI)

Poland TWA 2; 16-STEEL

Russia 4-STEEL

Sweden TWA 4(AI) (resp. dust)

10(AI) (total dust)

Switzerland MAK-W 2

United Kingdom TWA 10 (total inhalable dust)

4 (respirable dust)

USA PEL 15 (total dust)

5 (respirable fraction)

Zirconium and compounds, as Zr

mg/m³

ACGIH TLV 10; 10-STEEL, Not classifiable as human carcinogen

Australia TWA 5; 10-STEEL

Austria MAK 5

Denmark TWA 5

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Finland TWA 5
 Korea TLV 5
 Hungary 5-STEEL
 Poland TWA 5; 10-STEEL
 Russia 6-STEEL
 OSHA PEL 5

Magnesium oxide
 mg/m³

ACGIH TLV 10 (inhalable)
 Austria MAK 6 (fume)
 Belgium TWA 10 (fume)
 Denmark TWA 6 (Mg)
 France VME 10 (fume)
 Germany MAK 4 (inhalable)
 Hungary TWA 6 (resp); 24-STEEL (resp)
 Korea TLV 10 (fume)
 Netherlands MAC-TGG 10
 Norway TWA 10
 Poland TWA 10 (dust)
 Russia TWA 4-STEEL
 Switzerland MAK-W 3
 United Kingdom TWA 10 (total inhalable dust)
 4 (fume and respirable dust)
 OSHA PEL 15 (total particulate)
 No data

Additional information:**Personal protective equipment****General protective and hygienic measures****Breathing equipment:****Eye protection:****Body protection:**

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.
 Use breathing protection with high concentrations.
 Safety glasses
 Protective work clothing.

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

Form: Lump
Colour: Whitish
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

Inflammability (solid, gaseous) Product is not inflammable.

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: 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

Oxidizing agents

Dangerous reactions:

No dangerous reactions known

Dangerous products of decomposition:

Metal oxide

11 Toxicological information**Acute toxicity:****Primary irritant effect:****on the skin:****on the eye:****Sensitization:****Additional toxicological information:**

May cause irritation

May cause irritation

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.

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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:**

Observe the normal safety regulations when handling chemicals
The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffV).

National regulations**Information about limitation of use:**

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

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