

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

Tris(dimethylamino)aluminum dimer

Stock number:

43237

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
F Highly flammable

Information pertaining to particular dangers for man and environment

R 11 Highly flammable.
R 14/15 Reacts violently with water, liberating extremely flammable gases.
R 34 Causes burns.

GHS label elements

**Danger**H228 - Flammable solid.
H260+EUH014 - In contact with water releases flammable gases which may ignite spontaneously. Reacts violently with water.**Danger**H314 - Causes severe skin burns and eye damage.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
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.
P310 Immediately call a POISON CENTER or doctor/physician.
P402+P404 Store in a dry place. Store in a closed container.

Prevention:

Response:

Storage:

3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#)

Tris(dimethylamino)aluminum dimer (CAS# 32093-39-3)

4 First aid measures

General information

After inhalation

Instantly remove any clothing soiled by the product.
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.
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

For safety reasons unsuitable extinguishing agents

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

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

Water.

Reacts violently with water.
Can be released in case of fire:
Carbon monoxide and carbon dioxide
Nitrogen oxides (NO_x)
Possibly Hydrogen cyanide (HCN)
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

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.

Do not flush with water or aqueous cleansing agents

See Section 7 for information on safe handling

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

Additional information:

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:

Store in cool location.

Information about storage in one common storage facility:

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.

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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.
 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:

Not required.
 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:

Eye protection:

Use breathing protection with high concentrations.

Face protection

Safety glasses

Tightly sealed safety glasses.

Full face protection

Body protection:

Protective work clothing.

9 Physical and chemical properties:

General Information

Form: Powder
Colour: Light brown
Smell: Amine-like

Change in condition

Melting point/Melting range: 87-89°C
Boiling point/Boiling range: 90°C (0.5mm Hg; subl)
Sublimation temperature / start: Not determined

Flash point: 21°C

Inflammability (solid, gaseous)

Highly flammable.
 Contact with water liberates extremely flammable gases.

Ignition temperature:

Not determined

Decomposition temperature:

Not determined

Critical values for explosion:

Lower: Not determined
Upper: Not determined

Steam pressure:

Not determined

Density at 20°C

0.865 g/cm³

Solubility in / Miscibility with Water:

Reacts violently
 Contact with water releases flammable gases

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:

Materials to be avoided:

No decomposition if used and stored according to specifications.

Water/moisture

Oxidizing agents

Acids

Dangerous reactions:

Dangerous products of decomposition:

Reacts violently with water

Dimethylamine

Carbon monoxide and carbon dioxide

Nitrogen oxides (NOx)

Metal oxide

Possibly Hydrogen cyanide (HCN)

11 Toxicological information

Acute toxicity:

Primary irritant effect:

on the skin:

on the eye:

Sensitization:

Additional toxicological information:

Corrosive effect on skin and mucous membranes.

Strong corrosive effect.

No sensitizing effect known.

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.

13 Disposal considerations

Product:

Recommendation

Hand over to disposers of hazardous waste.

Must be specially treated under adherence to official regulations.

Consult state, local or national regulations for proper disposal.

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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: 4.3 (WC2) Substances which, in contact with water, emit flammable gases.
 Kemler Number: 482
 UN-Number: 3131
 Packaging group: I
 Label: 4.3+8
 Designation of goods: 3131 WATER-REACTIVE SOLID, CORROSIVE, N.O.S. (Tris(dimethylamino)aluminum dimer)
 Limited quantities (LQ): LQ0
 Transport category: 0
 Tunnel restriction code: E

Maritime transport IMDG/GGVSea:



IMDG/GGVSea Class: 4.3
 UN Number: 3131
 Label: 4.3+8
 Packaging group: I
 Marine pollutant: No
 Correct technical name: WATER-REACTIVE SOLID, CORROSIVE, N.O.S. (Tris(dimethylamino)aluminum dimer)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 4.3
 UN/ID Number: 3131
 Label: 4.3+8
 Packaging group: I
 Correct technical name: WATER-REACTIVE SOLID, CORROSIVE, N.O.S. (Tris(dimethylamino)aluminum dimer)

UN "Model Regulation":

UN3131, WATER-REACTIVE SOLID, CORROSIVE, N.O.S., 4.3 (8), I

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of product:



C Corrosive
F Highly flammable

Risk phrases:

11 Highly flammable.
 14/15 Reacts violently with water, liberating extremely flammable gases.
 34 Causes burns.

Safety phrases:

7/8 Keep container tightly closed and dry.
 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.
 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

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)