

Safety data sheet

according to 1907/2006/EC, Article 31

Revision: 15.12.2008

Printing date 01.07.2013

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name

1,4-Diiodobutane

Stock number:

A16216, L01835

CAS Number:

628-21-7

EC number:

211-032-1

1.2 Relevant identified uses of the substance or mixture and uses advised against.

Identified use:

SU24 Scientific research and development

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG
A Johnson Matthey Company
Zeppelinstr. 7b
76185 Karlsruhe / Germany
Tel: +49 (0) 721 84007 280
Fax: +49 (0) 721 84007 300
Email: tech@alfa.com
www.alfa.com

Informing department:

Product safety Tel + +049 (0) 7275 988687-0

1.4 Emergency telephone number:

Carechem 24: +44 (0) 1235 239 670 (Multi-language emergency number)

Poison Information Center Mainz

www.giftinfo.uni-mainz.de Telephone: +49(0)6131/19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xi; Irritant

R36/38: Irritating to eyes and skin.

Information concerning particular hazards for human and environment:

Not applicable

Other hazards that do not result in classification

No information known.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

Signal word

Hazard statements

Precautionary statements

The substance is classified and labelled according to the CLP regulation.

GHS07

Warning

H315 Causes skin irritation.

H319 Causes serious eye irritation.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

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

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

P321

Specific treatment (see on this label).

P362

Take off contaminated clothing and wash before reuse.

P332+P313

If skin irritation occurs: Get medical advice/attention.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

SECTION 3: Composition/information on ingredients

3.1 Substances

CAS# Designation:

628-21-7 1,4-Diiodobutane

Identification number(s):

211-032-1

EC number:

211-032-1

SECTION 4: First aid measures

4.1 Description of 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.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents

CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture

If this product is involved in a fire, the following can be released:

Carbon monoxide and carbon dioxide

Hydrogen iodide (HI)

5.3 Advice for firefighters

Protective equipment:

Wear self-contained breathing apparatus.

Wear full protective suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

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

Do not allow product to reach sewage system or water bodies.

Do not allow to enter the ground/soil.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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Prevention of secondary hazards:
6.4 Reference to other sections

No special measures required.
See Section 7 for information on safe handling
See section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

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SECTION 7: Handling and storage**7.1 Precautions 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:

No information known.

7.2 Conditions for safe storage, including any incompatibilities

Storage
Requirements to be met by storerooms and containers:

No special requirements.

Information about storage in one common storage facility:

Store away from oxidizing agents.
Store in the dark.

Further information about storage conditions:

Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Protect from the effects of light.

7.3 Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/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.

8.1 Control parameters

Components with critical values that require monitoring at the workplace:

Not required.

Additional information:

No data

8.2 Exposure controls

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.
Maintain an ergonomically appropriate working environment.
Use breathing protection with high concentrations.
Check protective gloves prior to each use for their proper condition.
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.

Breathing equipment:

Protection of hands:

Material of gloves

Penetration time of glove material

Eye protection:

Impervious gloves
Not determined
Safety glasses
Face protection
Protective work clothing.

Body protection:

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

General Information

Appearance:

Form: Liquid

Colour: Colourless

Smell: Not determined

Odour threshold: Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range: 5-7 °C

Boiling point/Boiling range: 108-110 °C (10mm Hg)

Sublimation temperature / start: Not determined

Flash point: Not determined

Inflammability (solid, gaseous): Not determined.

Ignition temperature: Not determined

Decomposition temperature: Not determined

Self-inflammability: 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 2,35 g/cm³

Relative density Not determined.

Vapour density Not determined.

Evaporation rate Not determined.

Solubility in / Miscibility with

Water: Not miscible or difficult to mix

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

dynamic: Not determined.

kinematic: Not determined.

9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity**10.1 Reactivity**

No information known.

10.2 Chemical stability

Stable under recommended storage conditions.

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions

No dangerous reactions known

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- 10.5 Incompatible materials:** Oxidizing agents
Bases
Reducing agents
Light
- 10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide
Hydrogen iodide (HI)

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects**
- Acute toxicity:** No effects known.
- LD/LC50 values that are relevant for classification:** No data
- Skin irritation or corrosion:** Causes skin irritation.
- Eye irritation or corrosion:** Causes serious eye irritation.
- Sensitization:** No sensitizing effect known.
- Germ cell mutagenicity:** No effects known.
- Carcinogenicity:** No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
- Reproductive toxicity:** No effects known.
- Specific target organ system toxicity - repeated exposure:** No effects known.
- Specific target organ system toxicity - single exposure:** No effects known.
- Aspiration hazard:** No effects known.
- Other information (about experimental toxicology):** Mutagenic effects have been observed on tests with bacteria.
- Additional toxicological information:** To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

SECTION 12: Ecological information

- 12.1 Toxicity**
- Aquatic toxicity:** No further relevant information available.
- 12.2 Persistence and degradability** No further relevant information available.
- 12.3 Bioaccumulative potential** No further relevant information available.
- 12.4 Mobility in soil** No further relevant information available.
- Additional ecological information:**
- General notes:** Do not allow material to be released to the environment without proper governmental permits.
Generally not hazardous for water.
Avoid transfer into the environment.
- 12.5 Results of PBT and vPvB assessment**
- PBT:** Not applicable.
- vPvB:** Not applicable.
- 12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods**
- 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.
- Uncleaned packagings:**
- Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- UN-Number**
- ADR, IMDG, IATA** None
- 14.2 UN proper shipping name**
- ADR, IMDG, IATA** None
- 14.3 Transport hazard class(es)**
- ADR, IMDG, IATA**
- Class** None
- Packing group**
- ADR, IMDG, IATA** None
- 14.5 Environmental hazards:** Not applicable.
- 14.6 Special precautions for user** Not applicable.
- 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- Transport/Additional information:** Not dangerous according to the above specifications.

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- Australian Inventory of Chemical Substances** Substance is not listed.
- Standard for the Uniform Scheduling of Drugs and Poisons** Substance is not listed.
- 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.
- Other regulations, limitations and prohibitive regulations**
- ELINCS (European List of Notified Chemical Substances)** Substance is not listed.
- Substances of very high concern (SVHC) according to REACH, Article 57** Substance is not listed.
- REACH - Pre-registered substances** Substance is listed.
- 15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 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.

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Department issuing data specification sheet: Health, Safety and Environmental Department.**Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
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)
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

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