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

Printing date 05.08.2010 Revision: 05.08.2010

1 Identification of substance

Product details

Trade name 2,3,4,5,6-Pentafluorophenacyl bromide

Stock number:

Alfa Aesar GmbH & Co.KG Manufacturer/Supplier:

Benzstrasse 3 D-76185 Karlsruhe / Germany

Product safety department. Informing department:

Giftnotruf Universität Mainz / Poison Information Center Mainz www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240 **Emergency information:**

2 Hazards identification

Hazard designation:

C Corrosive

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

R 34 Causes burns. Danger

H314 - Causes severe skin burns and eye damage. Prevention:

Response:

H314 - Causes severe skin burns and eye damage.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
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.
P405 Store locked up.

Storage:

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

3 Composition/information on ingredients

Chemical characterization:

2,3,4,5,6-Pentafluorophenacyl bromide (CAS# 5122-16-7): 100% Designation: (CAS#)

4 First aid measures

General information

Instantly remove any clothing soiled by the product.
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
Seek immediate medical advice. After inhalation

After skin contact

Instantly wash with water and soap and rinse thoroughly. Seek immediate medical advice.

Seek immediate medical advice.
Rinse opened eye for several minutes under running water. Then consult doctor.
Seek immediate medical advice. After eye contact After swallowing

5 Fire fighting measures

Protective equipment:

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

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

Can be released in case of fire: Carbon monoxide and carbon dioxide

Hydrogen bromide (HBr)
Hydrogen fluoride (HF)
Wear self-contained breathing apparatus.

Wear full protective suit.

6 Accidental release measures

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation Person-related safety precautions:

Measures for environmental protection: 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.
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 cleaning/collecting:

Keep ignition sources away - Do not smoke.

7 Handling and storage

Additional information:

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:

Storage

Requirements to be met by storerooms and containers:

Information about storage in one common

storage facility: Further information about storage

conditions:

No special requirements.

Store away from oxidizing agents.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

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.

(Contd. on page 2)

(Contd. of page 1)

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Breathing equipment: Protection of hands:

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.
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.
Safety glasses Material of gloves

Safety glasses
Tightly sealed safety glasses.
Full face protection
Face protection
Protective work clothing.

9 Physical and chemical properties:

General Information

Eye protection:

Body protection:

Form: Low melting solid Smell: Not determined

Change in condition
Melting point/Melting range:
Boiling point/Boiling range:
Sublimation temperature / start: 30-32°C Not determined Not determined Not applicable Flash point: Ignition temperature: Not determined

Decomposition temperature: Not determined Danger of explosion: Product is not explosive.

Critical values for explosion:

Not determined Upper: Not determined Steam pressure: Not determined Density Not determined

10 Stability and reactivity

Thermal decomposition / conditions to be

avoided:

Materials to be avoided:

Dangerous reactions:
Dangerous products of decomposition:

No decomposition if used and stored according to specifications. Oxidizing agents
No dangerous reactions known

Carbon monoxide and carbon dioxide Hydrogen bromide

Hvdrogen fluoride

11 Toxicological information

Acute toxicity: Primary irritant effect: on the skin:

on the eye:

Corrosive effect on skin and mucous membranes. Irritant for skin and mucous membranes. Strong corrosive effect. Irritant effect. Sensitization:

Additional toxicological information:

Irritant effect.

No sensitizing effect known.

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA

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: 8 (C10) Corrosive substances. 80 1759

Kemler Number: **UN-Number:** Packaging group: ijί

Designation of goods: Limited quantities (LQ) 1759 CORROSIVE SOLID, N.O.S. (2,3,4,5,6-Pentafluorophenacyl bromide)

Transport category

(Contd. on page 3)

(Contd. of page 2)

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Tunnel restriction code Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 8 1759 UN Number: 8 III Label Packaging group: Marine pollutant: Correct technical name:

No CORROSIVE SOLID, N.O.S. (2,3,4,5,6-Pentafluorophenacyl bromide)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: UN/ID Number: 8 1759 Label

Packaging group: Correct technical name: CORROSIVE SOLID, N.O.S. (2,3,4,5,6-Pentafluorophenacyl bromide)

UN "Model Regulation": UN1759, CORROSIVE SOLID, N.O.S., 8, III

Ε

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of

product:

C Corrosive

Risk phrases: 34 Causes burns.

Safety phrases:

When using do not eat or drink.
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.
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.

Abbreviations and acronyms:

Health, Safety and Environmental Department.

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)

IMDE: 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)