

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

Lead(II) trifluoroacetate

Stock number:

17553

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:



T Toxic

N Dangerous for the environment

Information pertaining to particular dangers for man and environment

R 61 May cause harm to the unborn child.
 R 62 Possible risk of impaired fertility.
 R 20/22 Also harmful by inhalation and if swallowed.
 R 33 Danger of cumulative effects.
 R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

GHS label elements

**Danger**

H360Df - May damage the unborn child. Suspected of damaging fertility.
 H373 - May cause damage to organs through prolonged or repeated exposure.

**Warning**

H400 - Very toxic to aquatic life.
 H410 - Very toxic to aquatic life with long lasting effects.

**Warning**

H302 - Harmful if swallowed.
 H332 - Harmful if inhaled.
 P201 Obtain special instructions before use.
 P273 Avoid release to the environment.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Prevention:

Response:

Disposal:

3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#)

Lead(II) trifluoroacetate (CAS# 4146-73-0)

Identification number(s):

082-001-00-6

Index 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.

After eye contact

Seek immediate medical advice.

After swallowing

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

5 Fire fighting measures

Suitable extinguishing agents

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

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

Can be released in case of fire:
 Carbon monoxide and carbon dioxide
 Hydrogen fluoride (HF)
 Leadoxide vapour
 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:

Dispose of contaminated material as waste according to item 13.

Additional information:

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.

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.
 Open and handle container with care.

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:

Store away from oxidizing agents.

Further information about storage conditions:

Store under dry inert gas.
 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.

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 13.07.2010

Revision: 13.07.2010

Trade name **Lead(II) trifluoroacetate**

(Contd. of page 1)

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:

Lead, elemental, and inorganic compounds (as Pb)
mg(Pb)/m³

ACGIH TLV	0.05	Confirmed animal carcinogen
Austria MAK	0.1	
Belgium TWA	0.15	
Denmark TWA	0.1	
Germany MAK	0.1	
Japan OEL	0.1	
Netherlands TWA	0.15	
Norway TWA	0.05	
Poland TWA	0.05	
Switzerland MAK-W	0.1	
United Kingdom TWA	0.1	
Finland TWA	0.1	
France TWA	0.15	
Hungary STEL	0.04	
Sweden TWA	0.1 (total dust)	
	0.05 (resp. dust)	
USA PEL	0.05	
No data		

Additional information:

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

Breathing equipment:

Eye protection:

Body protection:

9 Physical and chemical properties:

General Information

Form:	Powder
Colour:	White
Smell:	Odourless

Change in condition	
Melting point/Melting range:	147-153°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	Not determined
----------------	----------------

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Materials to be avoided:

Oxidizing agents

Dangerous reactions:

No dangerous reactions known

Dangerous products of decomposition:

Carbon monoxide and carbon dioxide
Hydrogen fluoride
Leadoxide vapour

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.
May cause harm to the unborn child.
Possible risk of impaired fertility.
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
EPA-B2: Probable human carcinogen, sufficient evidence from animal studies; inadequate evidence or no data from epidemiologic studies.
IARC-2B: Possibly carcinogenic to humans: limited evidence in humans in the absence of sufficient evidence in experimental animals.
ACGIH A3: Animal carcinogen: Agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) not considered relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence suggests that the agent is not likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.

12 Ecological information:

Ecotoxicological effects:

Remark:

Additional ecological information:

General notes:

Very toxic for fish

Water danger class 3 (Self-assessment): extremely hazardous for water.

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

(Contd. on page 3)

GB

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 13.07.2010

Revision: 13.07.2010

Trade name **Lead(II) trifluoroacetate**

(Contd. of page 2)

Danger to drinking water if even extremely small quantities leak into soil.
Also poisonous for fish and plankton in water bodies.
Do not allow material to be released to the environment without proper governmental permits.
Very toxic for aquatic organisms

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.

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: 6.1 (T5) Toxic substances.
Kemler Number: 60
UN-Number: 2291
Packaging group: III
Label: 6.1
Special marking: Symbol (fish and tree)
Designation of goods: 2291 LEAD COMPOUND, SOLUBLE, N.O.S. (Lead(II) trifluoroacetate)
Limited quantities (LQ) LQ9
Transport category 2
Tunnel restriction code E

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 6.1
UN Number: 2291
Label: 6.1
Packaging group: III
EMS Number: F-A,S-A
Marine pollutant: Yes (P)
Symbol (fish and tree)
Segregation groups Heavy metals and their salts (including their organometallic compounds), lead and its compounds
Correct technical name: LEAD COMPOUND, SOLUBLE, N.O.S. (Lead(II) trifluoroacetate)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 6.1
UN/ID Number: 2291
Label: 6.1
Packaging group: III
Correct technical name: LEAD COMPOUND, SOLUBLE, N.O.S. (Lead(II) trifluoroacetate)

UN "Model Regulation":

UN2291, LEAD COMPOUND, SOLUBLE, N.O.S., 6.1, III
Environmentally hazardous substance, solid; Marine Pollutant

Environmental hazards:**15 Regulatory information****Designation according to EC guidelines:**

Code letter and hazard designation of product:



T Toxic
N Dangerous for the environment

Risk phrases:

61 May cause harm to the unborn child.
62 Possible risk of impaired fertility.
20/22 Also harmful by inhalation and if swallowed.
33 Danger of cumulative effects.
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

53 Avoid exposure - obtain special instructions before use.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
60 This material and its container must be disposed of as hazardous waste.
61 Avoid release to the environment. Refer to special instructions/safety data sheets.

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

For use only by technically qualified individuals.
Employment restrictions concerning young persons must be observed.
Employment restrictions concerning women of child-bearing age must be observed.

Water hazard class:

Water danger class 3 (Self-assessment): extremely 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)

(Contd. on page 4)

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

Printing date 13.07.2010

Revision: 13.07.2010

Trade name **Lead(II) trifluoroacetate**

(Contd. of page 3)

P: Marine Pollutant
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service (division of the American Chemical Society)

GB