

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 03.08.2010

Revision: 03.08.2010

1 Identification of substance**Product details****Trade name****Platinum(II) cyanide****Stock number:**

B23055

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.giftnotruf.uni-mainz.de Telefon: +49(0)6131/19240**2 Hazards identification****Hazard designation:**T+ Very toxic
N Dangerous for the environment**Information pertaining to particular dangers for man and environment**

R 26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.

R 32 Contact with acids liberates very toxic gas.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

GHS label elements**Danger**

H300+EUH032 - Fatal if swallowed. Contact with acids liberates very toxic gas.

H310 - Fatal in contact with skin.

H330 - Fatal if inhaled.

**Warning**

H400 - Very toxic to aquatic life.

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

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P320 Specific treatment is urgent (see on this label).

P361 Remove/Take off immediately all contaminated clothing.

P405 Store locked up.

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

Prevention:**Response:****Storage:****Disposal:****3 Composition/information on ingredients****Chemical characterization:**

Platinum(II) cyanide (CAS# 592-06-3)

Designation: (CAS#)**Identification number(s):**

209-743-7

EINECS Number:**4 First aid measures****General information**

Instantly remove any clothing soiled by the product.

Remove breathing apparatus only after soiled clothing has been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

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.

After eye contact

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

After swallowing

Do not induce vomiting; instantly call for medical help.

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 cyanide (HCN)

Nitrogen oxides (NOx)

Metal oxide

Protective equipment:

Wear self-contained breathing apparatus.

Wear full protective suit.

6 Accidental release measures**Person-related safety precautions:**

Put on breathing apparatus.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Measures for environmental protection:

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.

Ensure adequate ventilation.

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.

Ensure good ventilation/exhaustion at the workplace.

Open and handle container with care.

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 together with oxidizing and acidic materials.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

(Contd. on page 2)
GB

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 03.08.2010

Revision: 03.08.2010

Trade name **Platinum(II) cyanide**

Store in a locked cabinet or with access restricted to technical experts or their assistants.

(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:

Cyanides (as CN)
mg/m³

Austria MAK	5 (skin)
Denmark TWA	5 (skin)
Finland TWA	5; 10-STEL
France VME	5 (skin)
Germany MAK	5 (skin)
Hungary TWA	0.3; 0.6-STEL (skin)
Netherlands MAC-TGG	5 (skin)
Poland TWA	0.3; 10-Ceiling
Sweden	5-Ceiling (skin)
Switzerland MAK-W	5; 10-STEL (skin)
United Kingdom	5-LTEL (skin)
OSHA PEL	5 (skin)

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.

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.

Impervious gloves

Not determined

Safety glasses

Protective work clothing.

Breathing equipment:**Protection of hands:****Material of gloves****Penetration time of glove material****Eye protection:****Body protection:****9 Physical and chemical properties:****General Information**

Form:	Powder
Colour:	Pale yellow
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
---------------------	----------------

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:

Acids
Oxidizing agents
Contact with acids liberates very toxic gas.
Carbon monoxide and carbon dioxide
Hydrogen cyanide (prussic acid)
Nitrogen oxides (NO_x)
Toxic metal compounds
Metal oxide

Dangerous reactions:**Dangerous products of decomposition:****11 Toxicological information****Acute toxicity:****Primary irritant effect:****on the skin:**

May cause irritation

on the eye:

May cause irritation

Sensitization:

No sensitizing effect known.

Additional toxicological information:

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

Danger by skin resorption.

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

12 Ecological information:**Ecotoxicological effects:****Remark:**

Very toxic for fish

Additional ecological information:**General notes:**

Also poisonous for fish and plankton in water bodies.

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

(Contd. on page 3)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 03.08.2010

Revision: 03.08.2010

Trade name **Platinum(II) cyanide**

Very toxic for aquatic organisms

(Contd. of page 2)

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: 1588
Packaging group: II
Label: 6.1
Special marking: Symbol (fish and tree)
Designation of goods: 1588 CYANIDES, INORGANIC, SOLID, N.O.S. (Platinum(II) cyanide)
Limited quantities (LQ): LQ18
Transport category: 2
Tunnel restriction code: D/E

Maritime transport IMDG/GGVSea:



IMDG/GGVSea Class: 6.1
UN Number: 1588
Label: 6.1
Packaging group: II
EMS Number: F-A,S-A
Marine pollutant: No
Segregation groups: Cyanides
Correct technical name: CYANIDES, INORGANIC, SOLID, N.O.S. (Platinum(II) cyanide)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 6.1
UN/ID Number: 1588
Label: 6.1
Packaging group: II
Correct technical name: CYANIDES, INORGANIC, SOLID, N.O.S. (Platinum(II) cyanide)

UN "Model Regulation":

UN1588, CYANIDES, INORGANIC, SOLID, N.O.S., 6.1, II
 Environmentally hazardous substance, solid; Marine Pollutant

Environmental hazards:

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of product:



T+ Very toxic
 N Dangerous for the environment

Risk phrases:

26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.
 32 Contact with acids liberates very toxic gas.
 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

7 Keep container tightly closed.
 28 After contact with skin, wash immediately with plenty of water.
 29 Do not empty into drains.
 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.

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

EINECS: European Inventory of Existing Commercial Chemical Substances

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