

Chemical Safety Data Sheet MSDS / SDS

Rhodium chloride (RhCl₃), trihydrate Rhodium(3+) trichloride trihydrate Rhodiumtrichloride trihydraterhodium(III) chloride solution rhodium(III) trichloride trihydrate SDS

Revision Date: 2024-04-25 Revision Number: 1

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

Product identifier

Product name: Rhodium chloride (RhCl₃), trihydrate Rhodium(3+) trichloride trihydrate Rhodiumtrichloride trihydraterhodium(III) chloride solution rhodium(III) trichloride trihydrate

CAS: 13569-65-8

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

Relevant identified uses: For R&D use only. Not for medicinal, household or other use.

Uses advised against: none

Company Identification

Company: Chemicalbook.in

Address: 5 vasavi Layout Basaveswara Nilayam Pragathi Nagar Hyderabad, India -500090

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SECTION 2: Hazards identification

Classification of the substance or mixture

Corrosive to metals, Category 1
Acute toxicity - Category 4, Oral
Serious eye damage, Category 1
Germ cell mutagenicity, Category 2
Hazardous to the aquatic environment, short-term (Acute) - Category Acute 1
Hazardous to the aquatic environment, long-term (Chronic) - Category Chronic 1

GHS label elements, including precautionary statements

Pictogram(s)



Signal word

Danger

Hazard statement(s)

H290 May be corrosive to metals
H302 Harmful if swallowed
H318 Causes serious eye damage
H341 Suspected of causing genetic defects
H410 Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

Prevention

P234 Keep only in original packaging.
P264 Wash ... thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
P203 Obtain, read and follow all safety instructions before use.
P273 Avoid release to the environment.

Response

P390 Absorb spillage to prevent material damage.
P301+P317 IF SWALLOWED: Get medical help.
P330 Rinse mouth.
P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P317 Get medical help.
P318 IF exposed or concerned, get medical advice.

P391 Collect spillage.

Storage

P406 Store in a corrosion resistant/...container with a resistant inner liner.

P405 Store locked up.

Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in classification

no data available

SECTION 3: Composition/information on ingredients

Substance

Chemical name: Rhodium chloride (RhCl₃), trihydrate Rhodium(3+) trichloride trihydrate Rhodiumtrichloride trihydraterhodium(III) chloride solution rhodium(III) trichloride trihydrate

Common names and synonyms: Rhodium chloride (RhCl₃), trihydrate Rhodium(3+) trichloride trihydrate Rhodiumtrichloride trihydraterhodium(III) chloride solution rhodium(III) trichloride trihydrate

CAS number: 13569-65-8

EC number: -

Concentration: 100%

SECTION 4: First aid measures

Description of necessary first-aid measures

If inhaled

Fresh air. Seek medical attention if you feel unwell.

Following skin contact

Remove contaminated clothes. Rinse skin with plenty of water or shower.

Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

Following ingestion

Rinse mouth. Seek medical attention if you feel unwell.

Most important symptoms/effects, acute and delayed

no data available

Indication of immediate medical attention and special treatment needed, if necessary

no data available

SECTION 5: Firefighting measures**Suitable extinguishing media**

Use dry chemical, carbon dioxide or alcohol-resistant foam.

Specific hazards arising from the chemical

Not combustible. Gives off irritating or toxic fumes (or gases) in a fire. See Chemical dangers

Special protective actions for fire-fighters

In case of fire in the surroundings, use appropriate extinguishing media.

SECTION 6: Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Sweep spilled substance into sealable containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

SECTION 7: Handling and storage

Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

Conditions for safe storage, including any incompatibilities

Separated from incompatible materials. Well closed. Dry. See Chemical Dangers.

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational Exposure limit values

TLV: (as Rh): 0.01 mg/m³, as TWA; A4 (not classifiable as a human carcinogen).MAK: (as Rh): carcinogen category: 3B

Biological limit values

no data available

Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear safety spectacles.

Skin protection

Protective gloves.

Respiratory protection

Avoid inhalation of dust and mist. Use local exhaust or breathing protection.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties and safety characteristics

Physical state: Red deliquescent powder.

Colour: no data available

Odour: no data available

Melting point/freezing point: 475°C

Boiling point or initial boiling point and boiling range: 100°C at 760mmHg

Flammability: no data available

Lower and upper explosion limit/flammability limit: no data available

Flash point: 40°F

Auto-ignition temperature: no data available

Decomposition temperature: no data available

pH: no data available

| | |
|--|-------------------------------|
| Kinematic viscosity: | no data available |
| Solubility: | Solubility in water: soluble? |
| Partition coefficient n-octanol/water: | no data available |
| Vapour pressure: | no data available |
| Density and/or relative density: | >1 |
| Relative vapour density: | no data available |
| Particle characteristics: | no data available |

SECTION 10: Stability and reactivity

Reactivity

no data available

Chemical stability

no data available

Possibility of hazardous reactions

No data. Decomposes on heating. This produces toxic and corrosive fumes including hydrogen chloride (see ICSC 0163). This generates toxic hazard. Reacts violently with iron pentacarbonyl and zinc. This generates explosion hazard.

Conditions to avoid

no data available

Incompatible materials

no data available

Hazardous decomposition products

no data available

SECTION 11: Toxicological information

Acute toxicity

Oral: no data available

Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

The substance is severely irritating to the eyes and possibly the respiratory tract. See Notes.

STOT-repeated exposure

See Notes.

Aspiration hazard

A harmful concentration of airborne particles can be reached quickly , especially if powdered.

SECTION 12: Ecological information**Toxicity**

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

Other adverse effects

no data available

SECTION 13: Disposal considerations**Disposal methods**

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

UN Number

ADR/RID: UN3260 (For reference only, please check.)
IMDG: UN3260 (For reference only, please check.)
IATA: UN3260 (For reference only, please check.)

UN Proper Shipping Name

ADR/RID: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (For reference only, please check.)
IMDG: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (For reference only, please check.)
IATA: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (For reference only, please check.)

Transport hazard class(es)

ADR/RID: 8 (For reference only, please check.)
IMDG: 8 (For reference only, please check.)
IATA: 8 (For reference only, please check.)

Packing group, if applicable

ADR/RID: I (For reference only, please check.)
IMDG: I (For reference only, please check.)
IATA: I (For reference only, please check.)

Environmental hazards

ADR/RID: Yes
IMDG: Yes

IATA: Yes

Special precautions for user

no data available

Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

European Inventory of Existing Commercial Chemical Substances (EINECS)

Not Listed.

EC Inventory

Not Listed.

United States Toxic Substances Control Act (TSCA) Inventory

Not Listed.

China Catalog of Hazardous chemicals 2015

Not Listed.

New Zealand Inventory of Chemicals (NZIoC)

Listed.

(PICCS)

Listed.

Vietnam National Chemical Inventory

Listed.

IECSC)

Not Listed.

Korea Existing Chemicals List (KECL)

Not Listed.

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>

HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>

IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>

ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>

Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>

ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

Other Information

The name of rhodium chloride is often used both the hydrated and the anhydrous form. Insufficient data are available on the effect of this substance on human health, therefore utmost care must be taken.

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any