

SAFETY DATA SHEET

Version Number: 5

Revision Date: 12 Feb 13

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: Sodium hexachloroosmate (IV)
Product Code: CMG – 14006
CAS No. 1307-81-9
REACH Registration No: Not applicable, substance is exempt from registration.

1.2 Relevant identified use for the substance or mixture and uses advised against

Laboratory Chemical, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

MANUFACTURER: Ceimig Limited
ADDRESS: Units 1 – 3 Smeaton Road
Wester Gourdie Industrial Estate
DUNDEE
DD2 4UT
Telephone: + 44 (0) 1382 624127
Fax: + 44 (0) 1382 611777
E-mail address: info@ceimig.com

1.4 Emergency Telephone Number

Telephone: + 44 (0) 1382 624127
The above telephone number is only available during office hours of 9am to 5pm (UK Time)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (EU-GHS/CLP)

Acute toxicity, Inhalation (Category 3)
Acute toxicity, Dermal (Category 3)
Acute toxicity, Oral (Category 3)
Skin corrosion (Category 1B)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Toxic by inhalation, in contact with skin and if swallowed

2.2 Label Elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Pictogram



Signal Word

Danger

Hazard Statement(s)

H301 Toxic if swallowed
H311 Toxic in contact with skin
H314 Causes severe burns and eye damage
H331 Toxic if inhaled

Precautionary Statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

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P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER or doctor/physician

Supplemental Hazard Statement(s) none

According to EU Directive 67/548/EEC as amended
 Hazard Symbol(s)



R-phrase(s)
 R23/24/25 Toxic by inhalation, in contact with skin and if swallowed
 R34 Causes burns

S-phrase(s)
 S22 Do not breathe dust
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
 S36/37/39 Wear suitable protective clothing, gloves and eye/face protection
 S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

2.3 Other Hazards
 none

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula $\text{Cl}_6\text{NaOs} \cdot x\text{H}_2\text{O}$
 Molecular Weight 448.93 g/mol

| Component | Concentration |
|--|---------------|
| Disodium hexachloroosmate hydrate | |
| CAS No: 1307-81-9 | - |
| EC No: 215-152-5 | |
| Index No: - | |

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General Advice

Consult a physician. Show this SDS to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration. Contact a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed



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no data available

SECTION 5: FIRE-FIGHTING MEASURES

- 5.1 Extinguishing media**
Use water spray, alcohol resistant foam, dry chemical or carbon dioxide
- 5.2 Special Hazards arising from the substance or mixture**
Hydrogen chloride gas, Sodium oxides
- 5.3 Advice for firefighters**
Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures**
Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Avoid breathing vapours, mist or gas.
- 6.2 Environmental precautions**
Do not let product enter drains.
- 6.3 Methods and materials for containment and cleaning up**
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
- 6.4 Reference to other sections**
For exposure control see section 8. For disposal see section 13

SECTION 7: HANDLING AND STORAGE

- 7.1 Precautions for safe handling**
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Keep away from sources of ignition – No smoking. Take measures to prevent the build up of electrostatic charge. Provide appropriate exhaust ventilation at places where dust is formed.
- 7.2 Conditions for safe storage, including any incompatibilities**
Store in a cool place. Keep container tightly closed in a dry and well-ventilated place. Hygroscopic.
- 7.3 Specific end use(s)**
no data available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Control Parameters**
Contains no substances with occupational exposure limit values.
- 8.2 Exposure Controls**
Appropriate engineering controls
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.
- Personal protective equipment**
Respiratory Protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
- Eye Protection**
Face Shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166(EU).
- Skin and body protection**
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer

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surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU directive 89/686/EEC and the standard EN 374 derived from it. Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | |
|---|----------------------------|
| a) Appearance | Form: solid, Colour: black |
| b) Odour | no data available |
| c) Odour Threshold | no data available |
| d) pH | no data available |
| e) Melting point/freezing point | no data available |
| f) Initial boiling point and boiling range | no data available |
| g) Flash point | no data available |
| h) Evaporation rate | no data available |
| i) Flammability (solid, gas) | no data available |
| j) Upper/Lower flammability or explosive limits | no data available |
| k) Vapour pressure | no data available |
| l) Vapour density | no data available |
| m) Relative density | no data available |
| n) Solubility | no data available |
| o) Partition coefficient: n-octanol/water | no data available |
| p) Auto-ignition temperature | no data available |
| q) Decomposition temperature | no data available |
| r) Viscosity | no data available |
| s) Explosive properties | no data available |
| t) Oxidising properties | no data available |

9.2 Other information

no data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

no data available

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

no data available



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Skin corrosion/Irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin Sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed Human carcinogen by IARC

Reproductive toxicity

no data available

Specific target organ toxicity – single exposure

Inhalation – May cause respiratory irritation.

Specific target organ toxicity – repeated exposure

no data available

Aspiration hazard

no data available

Potential Health Effects

Inhalation

Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion

Toxic if swallowed. Causes burns.

Skin

Toxic if absorbed through skin. Causes skin burns.

Eyes

Causes eye burns.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information

RTECS#: not available

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

SECTION 13: DISPOSAL CONSIDERATIONS

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13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. This material is to be disposed of as hazardous waste.

Contaminated packaging

Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

ADR/RID

UN3290

IMDG

UN3290

IATA

UN3290

14.2 UN proper shipping name

ADR/RID

TOXIC SOLID, CORROSIVE, INORGANIC, N.O.S (Disodium hexachloroosmate hydrate)

IMDG

TOXIC SOLID, CORROSIVE, INORGANIC, N.O.S (Disodium hexachloroosmate hydrate)

IATA

Toxic solid, corrosive, inorganic, n.o.s (Disodium hexachloroosmate hydrate)

14.3 Transport hazard class(es)

ADR/RID

Class 6.1 (8)

IMDG

Class 6.1 (8)

IATA

Class 6.1 (8)

14.4 Packing Group

ADR/RID

Packing Group II

IMDG

Packing Group II

IATA

Packing Group II

14.5 Environmental Hazards

ADR/RID

No

IMDG

Marine Pollutant: No

IATA

No

14.6 Special Precautions for user

no data available

SECTION 15: REGULATORY INFORMATION

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

no data available

15.2 Chemical Safety Assessment

no data available

SECTION 16: OTHER INFORMATION

Further Information:

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.