

An ISO 9001 : 2015 & GMP Certified Company Office : No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road, Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)

Tel: + 91 98200 41841 Email: info@ottokemi.com Web: www.ottokemi.com

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Product identifiers

Product Name: Gold-Germanium alloy (88 % Au and 12 % Ge) 99.99%

Product Code: G 2214

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

Use: Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification OTTO CHEMIE PVT LTD

No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road, Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)

1.4. Emergency telephone number

Phone no.: + 91 98200 41841 (10:00 am - 06:00 pm)

SECTION 2 HAZARDS IDENTIFICATION

GHS Classification (29 CFR 1910.1200): Not classified as hazardous

GHS Label Elements:

Signal Word : N/A Hazard Statements : N/A Precautionary Statements : N/A

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient: CAS#: %: EC#:

Gold 7440-57-5 75-88 231-165-9 Germanium 7440-56-4 12-25 231-164-3

SECTION 4 FIRST AID MEASURES

General Measures: Under normal handling and use, exposure to solid forms of this material present few health hazards.

Subsequent operations such as grinding, melting or welding may produce potentially hazardous dust or fumes which can be inhaled or come in contact with the skin or eyes.

INHALATION: Remove to fresh air, keep warm and quiet, give oxygen if breathing is difficult. Seek medical attention.

INGESTION: Rinse mouth with water. Do not induce vomiting. Seek medical attention. Never induce vomiting or give anything by mouth to an unconscious person.

SKIN: Remove contaminated clothing, brush material off skin, wash affected area with soap and water. Seek medical attention if symptoms persist.

EYES: Flush eyes with lukewarm water, including under upper and lower eyelids, for at least 15 minutes. Seek medical attention if symptoms persist.

Most Important Symptoms/Effects, Acute and Delayed: May cause irritation. See section 11 for more information.

Indication of Immediate Medical Attention and Special Treatment: No other relevant information available.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing Media: Use Class D or other metal extinguishing agent.

Unsuitable Extinguishing Media: No information available.

Specific Hazards Arising from the Material: May emit metal oxide fumes under fire conditions.

Special Protective Equipment and Precautions for Firefighters: Full face, self-contained breathing apparatus and full protective clothing when necessary.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures: Wear appropriate respiratory and protective equipment specified in section 8.

Methods and Materials for Containment and Cleaning Up: Sweep or scoop up. Place in properly labeled closed containers. Scrap can be collected for recycling.

Environmental Precautions: Do not allow to enter drains or to be released to the environment.

DISCLAIMER

Otto Chemie Pvt Ltd - products are only for laboratory use only. Not for drug, medicinal, household or any other use. No liability accepted for mishandling in use - please test before use

Otto Chemie Pvt Ltd - shall not be responsible for any damage resulting from handling or from contact with the above product.

Otto Chemie Pvt Ltd - provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product



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SECTION 7 HANDLING AND STORAGE

Precautions for Safe Handling: Avoid creating dust. Avoid contact with skin and eyes. Do not breathe dust or fumes. Provide adequate ventilation if dusts are created. See section 8 for information on personal protection equipment. Conditions for Safe Storage: Store in a sealed container. Store in a cool, dry area. See section 10 for more information on incompatible materials.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits: OSHA/PEL: ACGIH/TLV: No exposure limit established No exposure limit established Gold No exposure limit established Germanium No exposure limit established

Engineering Controls: Ensure adequate ventilation to maintain exposures below occupational limits. Whenever possible the use of local exhaust ventilation or other engineering controls is the preferred method of controlling exposure to airborne dust and fume to meet established occupational exposure limits. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air.

Respiratory Protection: If permissible levels are exceeded, use NIOSH approved dust respirator.

Eye Protection: Safety glasses

Skin Protection: Wear impermeable gloves, protective work clothing as necessary.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form: Solid in various forms

Golden to silvery depending on alloy composition percentages Color:

Odor: Odorless

Odor Threshold: Not determined

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N/A Melting Point: Varies Boiling Point: No data Flash Point: N/A **Evaporation Rate:** N/A Flammability: N/A Upper Flammable Limit: N/A

Lower Flammable Limit: N/A Vapor Pressure: No data Vapor Density: N/A Relative Density (Specific Gravity): Varies Solubility in H2O: Insoluble Partition Coefficient (n-octanol/water): Not determined Autoignition Temperature: No data **Decomposition Temperature:** No data Viscosity: N/A

SECTION 10 STABILITY AND REACTIVITY

Reactivity: No data

Chemical Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: None expected.

Conditions to Avoid: No data Incompatible Materials: No data

Hazardous Decomposition Products: None expected

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals:

Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg

Inhalation LC50 Rat: > 50mg/L.

Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH.

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant).

Special Remarks on Toxicity

to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

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Special Remarks on other Toxic Effects on Humans: Not available.

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity: No data

Persistence and Degradability: No data Bioaccumulative Potential: No data

Mobility in Soil: No data

Other Adverse Effects: No further relevant information available.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Product: Dispose of in accordance with Federal, State and Local regulations. Packaging: Dispose of in accordance with Federal, State and Local regulations.

SECTION 14 TRANSPORT INFORMATION

Shipping Regulations: Not regulated UN Number: N/A UN Proper Shipping Name: N/A Transport Hazard Class: N/A Packing Group: N/A Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA Listed: All components are listed. Regulation (EC) No 1272/2008 (CLP): N/A

Canada WHMIS Classification (CPR, SOR/88-66): N/A
HMIS Ratings: Health: 0 Flammability: 0 Physical: 0
NFPA Ratings: Health: 0 Flammability: 0 Reactivity: 0

Chemical Safety Assessment: A chemical safety assessment has not been carried out.

SECTION 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.



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