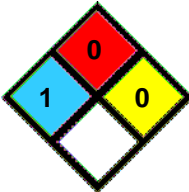


Gold (III) Oxide

| | | | | | | | | |
|----|----|----|----|----|----|----|----|----|
| Ru | Rh | Pd | Ag | Re | Os | Ir | Pt | Au |
|----|----|----|----|----|----|----|----|----|

| | | | | | | | | | |
|--|--|--------|---|--------------|---|------------|---|---------------------|---|
| NFPA  | HMIS <table border="1"> <tr> <td style="background-color: #00B0F0;">HEALTH</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="background-color: #FF0000;">FLAMMABILITY</td> <td style="text-align: center;">0</td> </tr> <tr> <td style="background-color: #FFFF00;">REACTIVITY</td> <td style="text-align: center;">0</td> </tr> <tr> <td>PERSONAL PROTECTION</td> <td style="text-align: center;">E</td> </tr> </table> | HEALTH | 1 | FLAMMABILITY | 0 | REACTIVITY | 0 | PERSONAL PROTECTION | E |
| HEALTH | 1 | | | | | | | | |
| FLAMMABILITY | 0 | | | | | | | | |
| REACTIVITY | 0 | | | | | | | | |
| PERSONAL PROTECTION | E | | | | | | | | |

1. Product And Company Identification

| | |
|---|---|
| Supplier Colonial Metals, Inc. Building 20 505 Blue Ball Road Elkton, MD 21921 United States Company Contact: Wayne Sher Telephone Number: 410-398-7200 FAX Number: 410-398-2918 E-Mail: wsher@colonialmetals.com Web Site: colonialmetals.com | Manufacturer Colonial Metals, Inc. Building 20 505 Blue Ball Road Elkton, MD 21921 United States Company Contact: Wayne Sher Telephone Number: 410-398-7200 FAX Number: 410-398-2918 E-Mail: wsher@colonialmetals.com Web Site: colonialmetals.com |
| Supplier Emergency Contacts & Phone Number Chemtrac: 800-424-9300 World Wide - Call COLLECT to U.S: 703-527-3887 | Manufacturer Emergency Contacts & Phone Number Chemtrac: 800-424-9300 World Wide - Call COLLECT to U.S: 703-527-3887 |

Issue Date: 12/30/2010
Product Name: Gold (III) Oxide
CAS Number: 1303-58-8
Chemical Family: Group 1B Metal Salt
Chemical Formula: Au₂O₃
MSDS Number: 2004
Product Code: 2004

2. Composition/Information On Ingredients

| Ingredient Name | CAS Number | Percent Of Total Weight |
|------------------|------------|-------------------------|
| Gold (III) Oxide | 1303-58-8 | 98 - 100 |

EMERGENCY OVERVIEW

Slightly hazardous. Irritant.

3. Hazards Identification

| | |
|-----------------------------------|--------|
| Primary Routes(s) Of Entry | |
| Eyes | Likely |
| Skin | Likely |
| Inhalation | Likely |

3. Hazards Identification - Continued

Eye Hazards

Irritating to eyes.

Skin Hazards

Irritating to skin.

Ingestion Hazards

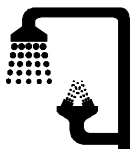
Not expected to be a problem in industry. If it does occur, may cause digestive tract irritation.

Inhalation Hazards

Irritating to respiratory tract.

The chemical, physical, and toxicological effects of this compound have not been thoroughly investigated.

First Aid (Pictograms)



4. First Aid Measures

Eye

Flush with copious amounts of water for at least 15 minutes. If discomfort continues, seek medical attention immediately.

Skin

Wash with soap and water. Cover affected, irritated skin with emollient. If discomfort continues, seek medical attention immediately.

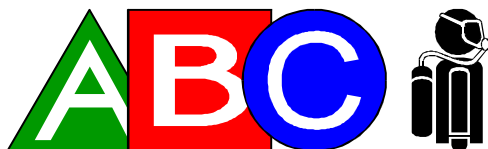
Ingestion

DO NOT induce vomiting unless instructed to do so by a medical professional. Never give anything by mouth to an unconscious person. Loosen tight clothing. Seek medical attention immediately.

Inhalation

Remove to fresh air immediately. If breathing is difficult give oxygen, if victim is not breathing give artificial respiration. Seek medical attention immediately.

Fire Fighting (Pictograms)



5. Fire Fighting Measures

Flash Point: NA °F NA °C

Flash Point Method: NA

Autoignition Point: NA °F NA °C

Flammability Class: Non-flammable

5. Fire Fighting Measures - Continued

Fire And Explosion Hazards

Use proper safety equipment.

Extinguishing Media

Use proper extinguishing media to fight surrounding fire.

Fire Fighting Instructions

Use NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

6. Accidental Release Measures

Clean up and place in a proper waste disposal container. Person protected with full face shield and NIOSH approved respirator and cartridge for chlorine vapor and dust. Ventilate area and wash spill site after pick up is completed.

7. Handling And Storage

Handling And Storage Precautions

Avoid contact with eyes, prolonged or repeated contact with skin. Avoid brathing dust. Use compatible chemical-resistant gloves. Wash hands thoroughly after handling.

Handling Precautions

Don't breathe dust. Avoid contact with eyes, skin, and chlothing. Avoid prolonged or repeated exposure.

Storage Precautions

Light sensative, store in a tightly closed light-resistant container in a cool, well ventilated area. Do not store above 25C (77F).

Work/Hygienic Practices

Use good personal hygiene after handling.

Protective Clothing (Pictograms)



8. Exposure Controls/Personal Protection

Engineering Controls

Ventilation: Local Exhaust: Required in handling area.
 Mechanical: Desirable to insure concentration of material below TLV/TWA levels.
 Other: Closed Ventilation system (Laboratory Fume Hood)

Safety shower and eyewash

Eye/Face Protection

ANSI approved safety glasses/goggles, full face shield.

Skin Protection

Rubber/Neoprene (use compatible chemical-resistant gloves)

Respiratory Protection

NIOSH approved chemical cartridge respirator for particulates and acid gas or self-contained breathing apparatus with full face shield.

Gold (III) Oxide

Ru Rh Pd Ag Re Os Ir Pt Au

8. Exposure Controls/Personal Protection - Continued**Other/General Protection**

Lab coat/apron, flame and chemical resistant protective clothing, eye wash, safety shower, and hygienic facilities for washing.

9. Physical And Chemical Properties**Appearance**

Brown powdered solid.

Odor

NA

Odor Threshold

NA

Chemical Type: Mixture

Physical State: Solid

Melting Point: decomposes °C

Boiling Point: NA °F NA °C

Molecular Weight: 441.93

Solubility: insoluble in cold water

10. Stability And Reactivity

Stability: Stable

Hazardous Polymerization: Will not occur

Conditions To Avoid (Stability)

Extreme heat. Incompatible materials.

Incompatible Materials

Ammonia, aqua regia.

Conditions To Avoid (Polymerization)

Will not occur.

11. Toxicological Information

Slightly hazardous in case of skin contact, ingestion, or inhalation. The chemical, physical, and toxicological effects of this compound have not been thoroughly investigated.

12. Ecological Information

No Data Available...

13. Disposal Considerations

Consult Federal EPA, State, and local regulations for proper disposal/recycle/reclamation.

NOTE: Chemical additions, processing, or otherwise altering this material may make the waste management information

presented above incomplete, inaccurate, or otherwise inappropriate.



MATERIAL SAFETY DATA SHEET

Gold (III) Oxide

Ru Rh Pd Ag Re Os Ir Pt Au

14. Transport Information

Proper Shipping Name

non-hazardous

15. Regulatory Information

U.S. Regulatory Information

TSCA 8(b) inventory: Gold (III) Oxide

SARA Section 313 Notification

This product does not contain any ingredients regulated under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 or 40 CFR 372.

Canadian Regulatory Information

Not controlled under WHMIS.

European Union (EU) Regulatory Information

This product is on the European Inventory of Existing Commercial Chemical Substances.

16. Other Information

NFPA Rating

Health: 1

Fire: 0

Reactivity: 0

HMIS Rating

Health: 1

Fire: 0

Reactivity: 0

Personal Protection: E

Revision/Preparer Information

MSDS Preparer: Wayne S. Sher

MSDS Preparer Phone Number: (410)398-7200

Disclaimer

In compliance with the OSHA Hazard Communication Standard, 29 C.F.R. 1910.1200, we are providing you with a Material Safety Data Sheet (MSDS) for the hazardous material you are purchasing.

It is your responsibility to educate your employees on the safe use of the hazardous material. With this mind, a copy should be forwarded to the supervisor of the user or to the user themselves, and a copy should be retained in your files for future reference.

Colonial Metals, Inc. makes no presentation as to the accuracy of the information in the MSDS. The information is believed to be correct; however, you (the customer), should perform your own investigation and independent verification. If you resell the product, you are responsible to forward the information in the MSDS to your customer.

Colonial Metals, Inc.