



Changsha Santech Materials Co.,Ltd.

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Material Safety Data Sheet

Gallium Oxide MSDS

Section 1 - Chemical Product and Company Identification

Product Name: Gallium Oxide

Formula: Ga₂O₃

CAS #: 12024-21-4

Molecular Weight : 187,44 g/mol

Form: white powder

Data No.: MSDS-Ga₂O₃-160123

Contact Information:

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Section 2 - Composition, Information on Ingredients

Composition:

| Name | CAS No. | EC-No. | %by weight |
|----------------------|------------|-----------|------------|
| Gallium Oxide | 12024-21-4 | 234-691-7 | 100 |

Section 3 - Hazards Identification

Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

Label elements: The product does not need to be labelled in accordance with EC directives or respective national laws.

Other hazards: none

Section 4 - First Aid Measures

Description of first aid measures

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact: Wash off with soap and plenty of water.

In case of eye contact: Flush eyes with water as a precaution.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water.

Section 5 - Fire Fighting Measures

Extinguishing media

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special hazards arising from the substance or mixture: gallium oxides

Advice for firefighters: Wear self contained breathing apparatus for fire fighting if necessary.

Further information: The product itself does not burn.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapors, mist or gas.

Environmental precautions: Do not let product enter drains.

Methods and materials for containment and cleaning up: Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections: For disposal see section 13.

Section 7 - Handling and Storage

Precautions for safe handling: Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage, including any incompatibilities: Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Specific end uses: no data available

Section 8 - Exposure Controls, Personal Protection

Control parameters

Components with workplace control parameters

Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique(without touching glove's outer 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.

Body Protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific

workplace.

Respiratory protection: Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9 - Physical and Chemical Properties -----

Information on basic physical and chemical properties

Appearance Form: powder

Colour: white

Odour: no data available

Odour Threshold: no data available

pH: no data available

Melting point/freezing point: no data available

Initial boiling point and boiling range: no data available

Flash point: not applicable

Evaporation rate: no data available

Flammability (solid, gas): no data available

Relative density: 5,88 g/mL at 25 °C

Water solubility: no data available

Autoignition temperature: no data available

Decomposition temperature: no data available

Viscosity: no data available

Explosive properties: no data available

Oxidizing properties: no data available

Section 10 - Stability and Reactivity -----

Reactivity: no data available

Chemical stability: no data available

Possibility of hazardous reactions: no data available

Conditions to avoid: no data available

Incompatible materials: Strong oxidizing agents

Hazardous decomposition products: Other decomposition products - no data available

Section 11 - Toxicological Information -----

Information on toxicological effects

Acute toxicity

LD50 Oral - mouse - 10.000 mg/kg

Remarks: Peripheral Nerve and Sensation:Flaccid paralysis without anesthesia (usually neuromuscular blockage). Behavioral:Somnolence (general depressed activity). Behavioral:Food intake (animal).

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitization: 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: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Additional Information

RTECS: Not available

Section 12 - Ecological Information -----

Toxicity: no data available

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment: no data available

Other adverse effects: no data available

Section 13 - Disposal Considerations -----

Waste treatment methods

Product: Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging: Dispose of as unused product.

Section 14 - Transport Information -----

UN number

| | | |
|------------|---------|---------|
| ADR/RID: - | IMDG: - | IATA: - |
|------------|---------|---------|

UN proper shipping name

| | |
|----------|---------------------|
| ADR/RID: | Not dangerous goods |
|----------|---------------------|

| | |
|-------|---------------------|
| IMDG: | Not dangerous goods |
|-------|---------------------|

| | |
|-------|---------------------|
| IATA: | Not dangerous goods |
|-------|---------------------|

Transport hazard class(es)

| | | |
|------------|---------|---------|
| ADR/RID: - | IMDG: - | IATA: - |
|------------|---------|---------|

Packaging group

| | | |
|------------|---------|---------|
| ADR/RID: - | IMDG: - | IATA: - |
|------------|---------|---------|

Environmental hazards

| | | |
|-------------|---------------------------|----------|
| ADR/RID: no | IMDG Marine pollutant: no | IATA: no |
|-------------|---------------------------|----------|

Special precautions for user: no data available

Section 15 - Regulatory Information -----

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

Safety, health and environmental regulations/legislation specific for the substance or mixture:
no data available

Chemical Safety Assessment: no data available

Section 16 - Additional Information -----

References: based on the present state of our knowledge and is to describe the product with reference to the safety measures that must be taken

Other Special Considerations: Not available.

Created: 10/10/2011

Last Updated: 23/01/2016

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