

## 1 - Product and Company Information

ProductName GADOLINIUM(III) PERCHLORATE, 99.5%, 40 WT. % SOLUTION IN WATER

## 2 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT  
Contact with combustible material may cause fire. Causes burns.

## 3 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I
GADOLINIUM(III) PERCHLORATE, 99.5%, 40 WT. % SOLUTION IN WATER	14017-52-8	237-837-8	None

Formula Gd(ClO<sub>4</sub>)<sub>3</sub>  
Molecular Weight 455.6 AMU

## 4 - First Aid Measures

### AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

### AFTER EYE CONTACT

Assure adequate flushing of the eyes by separating the eyelids with fingers.

### AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

## 5 - Fire Fighting Measures

### CONDITIONS OF FLAMMABILITY

May accelerate combustion.

### EXTINGUISHING MEDIA

Suitable: Water spray.

### SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions. May accelerate combustion. Contact with other material may cause fire.

### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

## 6 - Accidental Release Measures

### PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area.

### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

### METHODS FOR CLEANING UP

Cover with dry lime or soda ash, pick up, keep in a closed container, and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

## 7 - Handling and Storage

### HANDLING

Directions for Safe Handling: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

### STORAGE

Conditions of Storage: Keep tightly closed. Store in a cool dry place.  
Unsuitable: Do not store near, nor allow contact with, clothing and other combustible material.

## 8 - Exposure Controls / Personal Protection

### ENGINEERING CONTROLS

Safety shower and eye bath. Use only in a chemical fume hood.

### GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Wash contaminated clothing before reuse. Discard contaminated shoes.

### PERSONAL PROTECTIVE EQUIPMENT

Special Protective Measures: Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing. Faceshield (8-inch minimum).

## 9 - Physical and Chemical Properties

pH	N/A
BP/BP Range	N/A
MP/MP Range	N/A
Flash Point	N/A
Flammability	N/A
Autoignition Temp	N/A
Oxidizing Properties	N/A
Explosive Properties	N/A
Explosion Limits	N/A
Vapor Pressure	6.204 mmHg
SG/Density	1.445 g/cm <sup>3</sup>
Partition Coefficient	N/A
Viscosity	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
Evaporation Rate	N/A
Bulk Density	N/A
Decomposition Temp.	N/A
Solvent Content	N/A
Water Content	N/A
Surface Tension	N/A
Conductivity	N/A
Miscellaneous Data	N/A
Solubility	N/A

## 10 - Stability and Reactivity

### STABILITY

Stable: Stable.  
Materials to Avoid: Organic materials, Finely powdered metals, Strong reducing agents.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Chlorine.

## 11 - Toxicological Information

### SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  
Blood effects. Exposure can cause: Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Inhalation of rare earths may cause sensitivity to heat, itching, and increased awareness of odor and taste. Rare earth compounds may cause delayed blood clotting leading to hemorrhages. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

## 12 - Ecological Information

No data available.

## 13 - Disposal Considerations

### SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

## 14 - Transport Information

### RID/ADR

UN#: 3098

Class: 5.1

PG: II

Subrisk: 8

Proper Shipping Name: Oxidizing liquid, corrosive, n.o.s.

### IMDG

UN#: 3098

Class: 5.1

PG: II

Subrisk: 8

Proper Shipping Name: Oxidizing liquid, corrosive, n.o.s.

### IATA

UN#: 3098

Class: 5.1

PG: II

Subrisk: 8

Proper Shipping Name: Oxidizing liquid, corrosive, n.o.s.

### Inhalation Packing Group

I: No

Technical Name: Required

### Technical Name:

Required

## 15 - Regulatory Information

### CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

#### INDICATION OF DANGER: O-C

Oxidizing, Corrosive.

R-PHRASES: 8-34

Contact with combustible material may cause fire. Causes burns.

Proper Shipping Name: Oxidizing liquid, corrosive, n.o.s.

Keep away from combustible material. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take off immediately all contaminated clothing. Wear suitable protective clothing, gloves and eye protection. Wear suitable protective clothing, gloves and eye protection.

Wear suitable protective clothing, gloves and eye protection. If you feel unwell, seek medical advice immediately (show the label where possible).

## 16 - Other Information

For R&D use only. Not for drug, household or other uses.

The above information is believed to be correct but does not purport to be all inclusive and shall be used 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. Lookchem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions.



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