

1 Identification of substance:

Product details:

Trade name: Lithofin RSG

Application of the substance / the preparation Cleaning agent / cleaner

Distributor:

GranQuartz, L. P.
P.O. Box 2206
Tucker, GA 30085-2206/USA

Information Department:

see above

Emergency Information:

information department

24-Hour Emergency Telephone Number:

1-800-255-3924 (USA & Canada) or 813-248-0585

2 Composition/Data on components:

Chemical characterization

Mixture of the substances listed below with non hazardous additions.

Dangerous components:

| | |
|---------------------------------------|----------|
| 1341-49-7 ammonium hydrogendifluoride | 2.5-10 % |
| RTECS: BQ 9200000 | |
| 16961-83-4 fluorosilicic acid | 2.5-10 % |

TSCA

All ingredients are listed

3 Hazards identification

Hazard description: Corrosive

Information pertaining to particular dangers for man and environment

Acid burns have to be treated immediately, as it may otherwise cause badly curing wounds.

Harmful if swallowed.

Causes burns.

Classification system

The classification is in line with internationally approved calculation standards. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

NFPA ratings (scale 0-4)

Health = 2
Fire = 0
Reactivity = 0
Special: Acid

4 First aid measures

General information

Personal protection for the First Aider.

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation

Lithofin RSG

Remove victim from contaminated area. If breathing is difficult, give oxygen. If breathing stops, provide artificial respiration. Call a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact

Remove soiled clothes and shoes.

Rub in Ca-gluconate solution or Ca-gluconate gel immediately.

Clean effected skin thoroughly with water and a mild cleansing agent.

No residues shall remain on the skin.

After extensive or prolonged contact: Immediately call a physician to the place of accident.

After eye contact

First check the victim for contact lenses and remove if present.

Protect unharmed eye.

Rinse the eyes with open eyelids for 10 - 15 minutes with water. Then consult an eye specialist immediately.

After swallowing

Do not induce vomiting

Drink plenty of water, but never give anything to an unconscious person.

Seek medical treatment.

Information for doctor

Treatment Symptomatic treatment

5 Fire fighting measures

Suitable extinguishing agents

The product is not combustible and does not support combustion.

Use fire fighting measures that suit the environment.

Special hazards caused by the material, its products of combustion or resulting gases:

Hydrogen fluoride (HF)

Protective equipment:

Wear self-contained respiratory protective device.

Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

Person-related safety precautions:

Ensure adequate ventilation

Wear protective clothing.

Keep unprotected persons away.

Measures for environmental protection:

Do not allow product to reach sewage system or any water course.

Do not allow to penetrate the ground/soil.

Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Neutralize with slaked lime.

Send for recovery or disposal in suitable receptacles.

Dispose contaminated material as waste according to item 13.

7 Handling and storage

Handling

Information for safe handling:

Use only in well ventilated areas.

Avoid contact with eyes and skin.

Avoid inhalation of vapours.

Information about protection against explosions and fires:

No special measures required.

Storage

Requirements to be met by storerooms and receptacles:

Store receptacles tightly closed at a cool and dry place with sufficient ventilation
Provide acid-resistant floor.

Unsuitable material for receptacle: glass or ceramic.

Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from feed.

Do not store together with alkalis (caustic solutions).

Further information about storage conditions:

Keep receptacle tightly sealed.

Storage class 8 Corrosive products (VCI)

8 Exposure controls and personal protection

Additional information about design of technical systems:

No further data; see item 7.

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information:

The lists that were valid during the creation were used as basis.

Personal protective equipment

General protective and hygienic measures

Keep away from foodstuffs, beverages and feed.

Do not eat or drink while working.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with eyes and skin absolutely.

The usual protective measures based on the application have to be followed.

All protective equipment used shall be according to 29 CFR.1910 Subpart I Personal Protective Equipment

Breathing equipment:

Not necessary if room is well-ventilated.

Short term filter device:

Filter: B E P3

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Protection of hands:

Acid resistant gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

After use of gloves apply skin-cleaning agents and skin cosmetics.

Material of gloves

Polychloropren rubber (CR)

Butyl rubber, BR

Nitrile rubber, NBR

Natural rubber, NR

Fluorocarbon rubber (FKM)

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Tightly sealed goggles.

If splashing of the product is possible wear full face protection.

Body protection: Acid resistant protective clothing

9 Physical and chemical properties:

General Information

Form: Fluid

Color: Colorless, clear

Odor: Odorless

| | <u>Value/Range</u> | <u>Unit</u> | <u>Method</u> |
|--|---|-------------------|-------------------|
| Change in condition | | | |
| Melting point/Melting range: | undetermined | | |
| Boiling point/Boiling range: | > 90 | ° C | |
| Flash point: | Not applicable | | |
| Auto igniting: | Product is not self igniting. | | |
| Danger of explosion: | Product does not present an explosion hazard. | | |
| Density: | at 20 ° C ~ 1.1 | g/cm ³ | |
| Solubility in / Miscibility with Water: | Miscible | | |
| pH-value: | at 20° C 1-4 | | in delivery state |

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Dangerous reactions Reacts with metals forming hydrogen

Dangerous products of decomposition: Hydrogen fluoride

11 Toxicological information

Acute toxicity:

LD/LC50 values that are relevant for classification:

No toxicity data are available for the product itself.

Primary irritant effect:

on the skin: Caustic effect on skin and mucous membranes.

on the eye: Caustic effect

Sensitization: No sensitizing effects known.

Additional toxicological information:

The product shows the following dangers according to internationally approved calculation methods for preparations: Corrosive, Harmful

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

12 Ecological information:

Ecotoxicological effects:

Aquatic toxicity:

Presently there are no ecotoxicological values available.

Remark: Harmful effects possible due to shift of pH value.

General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Danger to drinking water is possible if large quantities leak into the ground or into water course.

13 Disposal considerations

Product:

Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Disposal according to instructions of local authorities.

Uncleaned packagings:

Recommendation:

Disposal must be made according to official regulations.

14 Transport information

DOT regulations:

Hazard class: 8

Identification number: UN2817

Packing group: II

Proper shipping name (technical name):

AMMONIUM HYDROGENDIFLUORIDE SOLUTION

Label 8 + 6.1

Land transport ADR/RID (cross-border)

ADR/RID class: 8 (CT1) Corrosive substances

Danger code (Kemler):86

UN-Number: 2817

Packaging group: III

Label 8 + 6.1

Description of goods: 817 AMMONIUM HYDROGENDIFLUORIDE SOLUTION

Maritime transport IMDG:

IMDG Class: 8

UN Number: 2817

Label 8 + 6.1

Packaging group: III

EMS Number: F-A,S-B

Marine pollutant: No

Proper shipping name: AMMONIUM HYDROGENDIFLUORIDE SOLUTION

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 8

UN/ID Number: 2817

Label 8 + 6.1

Packaging group: III

Proper shipping name: AMMONIUM HYDROGENDIFLUORIDE SOLUTION

15 Regulations

Cancerogenity categories

EPA (Environmental Protection Agency)

void

IARC (International Agency for Research on Cancer)

void

NTP (National Toxicology Program)

void

TLV (Threshold Limit Value established by ACGIH)

void

MAK (German Maximum Workplace Concentration)

void

NIOSH-Ca (National Institute for Occupational Safety and Health)

void

OSHA-Ca (Occupational Safety & Health Administration)

void

Markings according to EU guidelines:

Code letter and hazard designation of product: Corrosive

Hazard-determining components of labelling: ammonium hydrogendifluoride

Risk phrases:

Harmful if swallowed.

Causes burns.

Safety phrases:

Keep locked up and out of the reach of children.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

After contact with skin, wash immediately with plenty of water

Wear suitable protective clothing, gloves and eye/face protection.

In case of accident or if you feel unwell, seek medical advice immediately.

If swallowed, rinse mouth with water (only if the person is conscious)

Regulation or reporting requirements USA

Sara section 355

not listed

Sara section 313

not listed

Prop. 65 - Cancer

not listed

Prop. 65 - Repr. tox.

not listed

16 Other information:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing MSDS:

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