

## 1 Identification

- **This product is considered an article. This Safety Data Sheet is written based on the encapsulated substance or mixture in this article.**
- **Product identifier:** Gas purifying filter
- **Trade name:** CRS Gas Dry Purifier
- **Article number:** 202238-B, 202239-B, 202238L-B, 202239L-B, 202238-SS, 202239-SS, 202238L-SS, 202239L-SS
- **SDS number:** 991062
- **Application of the substance / the preparation** Purifying gas
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Chromatography Research Supplies, Inc.  
2601 Technology Drive  
Louisville, KY 40299 USA  
msds@chromres.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
During normal opening times: +1 (502) 491-6300  
CHEMTREC (24 Hours) 800-424-9300 (U.S.A.)  
When Calling from Outside the U.S.A., Dial Your Access Code for the U.S.A., then 1, then 703-527-3887.

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS05 Corrosion

H318 Causes serious eye damage.

- 
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Irritant

Risk of serious damage to eyes.

- **Information concerning particular hazards for human and environment:**  
The product has to be labeled due to the calculation procedure of international guidelines.
- **Classification system:**  
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- 
- **Label elements**
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**



GHS05

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
Calcium oxide
- **Hazard statements**  
Causes serious eye damage.
- **Precautionary statements**  
If medical advice is needed, have product container or label at hand.

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Keep out of reach of children.

Read label before use.

Wear protective gloves/protective clothing/eye protection/face protection.

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/physician.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = 2
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

1344-28-1	Aluminum oxide		0-45%
1305-78-8	Calcium oxide	☞ H318	0-30%
14808-60-7	Quartz (SiO <sub>2</sub> )		<7%

· **Additional Components**

7631-86-9	Silicon dioxide, chemically prepared		15-75%
1313-59-3	Sodium oxide		0-30%
10125-13-0	Copper (II) chloride dihydrate		<1%

### 4 First-aid measures

· **Description of first aid measures**

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Generally the product does not irritate the skin.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:** If symptoms persist consult doctor.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

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## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Prevent formation of dust.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

### 1344-28-1 Aluminum oxide

PEL	Long-term value: 15*; 15** mg/m <sup>3</sup> *Total dust; ** Respirable fraction
REL	Long-term value: 10* 5** mg/m <sup>3</sup> *Total dust **Respirable fraction
TLV	Long-term value: 1* mg/m <sup>3</sup> as Al; *as respirable fraction

### 1305-78-8 Calcium oxide

PEL	Long-term value: 5 mg/m <sup>3</sup>
REL	Long-term value: 2 mg/m <sup>3</sup>
TLV	Long-term value: 2 mg/m <sup>3</sup>

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**14808-60-7 Quartz (SiO<sub>2</sub>)**

PEL	see Quartz listing
REL	Long-term value: 0.05* mg/m <sup>3</sup> *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m <sup>3</sup> *as respirable fraction

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

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

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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

· **Material of gloves**

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **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

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Solid

Color: According to product specification

· **Odor:** Characteristic

· **Odour threshold:** Not determined.

· **pH-value:** Not applicable.

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· <b>Change in condition</b> Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Not determined.
· <b>Ignition temperature:</b>	370 °C (698 °F)
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b> Lower:	Not determined.
Upper:	Not determined.
· <b>Vapor pressure:</b>	Not applicable.
· <b>Density at 20 °C (68 °F):</b>	0.8 g/cm <sup>3</sup> (6.676 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not applicable.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with Water:</b>	Insoluble.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b> Dynamic:	Not applicable.
Kinematic:	Not applicable.
· <b>Solvent content:</b> Organic solvents:	0.0 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Copper(II) chloride dihydrate LD50/oral/rat = 584 mg/kg.
- **Primary irritant effect:**  
  on the skin: No irritant effect.

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- **on the eye:**

Strong irritant with the danger of severe eye injury.

Contact with eyes may cause irritation.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

- **Carcinogenic categories**

· <b>IARC (International Agency for Research on Cancer)</b>		
7631-86-9	Silicon dioxide, chemically prepared	3
14808-60-7	Quartz (SiO <sub>2</sub> )	1
· <b>NTP (National Toxicology Program)</b>		
14808-60-7	Quartz (SiO <sub>2</sub> )	K

## 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** Harmful to aquatic life with long lasting effects.

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Avoid release to the environment. Dispose of contents/container to an approved waste disposal plant.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

· <b>UN-Number</b>	
· <b>DOT, ADR, ADN, IMDG, IATA</b>	Void
· <b>UN proper shipping name</b>	
· <b>DOT, ADR, ADN, IMDG, IATA</b>	Void
· <b>Transport hazard class(es)</b>	
· <b>DOT, ADR, ADN, IMDG, IATA</b>	
· <b>Class</b>	Void

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- |  |                 |
|--|-----------------|
| <b>· Packing group</b>   |                 |
| <b>· DOT, ADR, IMDG, IATA</b>  | Void            |
| <b>· Environmental hazards:</b>  |                 |
| <b>· Marine pollutant:</b>   | No              |
| <b>· Special precautions for user</b>  | Not applicable. |
| <b>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| <b>· UN "Model Regulation":</b>  | -               |

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

- Section 355 (extremely hazardous substances):

None of the ingredients is listed.

- Section 313 (Specific toxic chemical listings):

1344-28-1 | Aluminum oxide

- TSCA (Toxic Substances Control Act):

7631-86-9 | Silicon dioxide, chemically prepared

1344-28-1 | Aluminum oxide

1305-78-8 | Calcium oxide

1313-59-3 | Sodium oxide

14808-60-7 | Quartz (SiO<sub>2</sub>)

- Proposition 65

- Chemicals known to cause cancer:

14808-60-7 | Quartz (SiO<sub>2</sub>)

- Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

- Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

- Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- Carcinogenic categories

- EPA (Environmental Protection Agency)

None of the ingredients is listed.

- TLV (Threshold Limit Value established by ACGIH)

1344-28-1 | Aluminum oxide

A4

14808-60-7 | Quartz (SiO<sub>2</sub>)

A2

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

14808-60-7 | Quartz (SiO<sub>2</sub>)

- OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

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- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05

- **Signal word** Danger
- **Hazard-determining components of labeling:**
  - Calcium oxide
- **Hazard statements**
  - Causes serious eye damage.
- **Precautionary statements**
  - If medical advice is needed, have product container or label at hand.
  - Keep out of reach of children.
  - Read label before use.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - Immediately call a POISON CENTER or doctor/physician.
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**
  - R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  - S61: Avoid release to the environment. Refer to special instructions / safety data sheets.
  - The product is classified and labelled according to Regulation (EC) No. 1272/2008 (GHS/CLP). The product is classified and labelled in accordance with Directive 1999/45/EC.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 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.

- **Relevant phrases**
  - GHS Classification -
  - TAOr4: Acute toxicity, oral, Cat. 4
  - CSk2: Skin corrosion/irritation, Cat. 2
  - CEy2: Serious eye damage/eye irritation, Cat. 2
  - NChr1: Hazardous to the aquatic environment, chronic, Cat. 1
- **Department issuing MSDS:** Product safety department
- **Contact:** Product Safety Department
- **Abbreviations and acronyms:**
  - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  - ICAO: International Civil Aviation Organization
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)

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NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)

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