

## 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 Moisture / Oil / Dust-Removing Purifier, Cobalt-Free
- **Article number:** 202290, 202292, 202294, 202296, 202234-B, 202235-B, 202234-SS, 202235-SS, 202298
- **SDS number:** 991041
- **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.

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- **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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Reviewed on 08/08/2013

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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	☞ H301; ☠ H315; H320	<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> <b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Undetermined.
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Not determined.
· <b>Ignition temperature:</b>	Not applicable
· <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> <b>Lower:</b>	Not determined.
<b>Upper:</b>	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</b> <b>Water:</b>	Insoluble.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b> <b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.
· <b>Solvent content:</b> <b>Organic solvents:</b>	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:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Strong irritant with the danger of severe eye injury.

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- **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:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** Does not accumulate in organisms
- **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.
- **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 |
| · <b>Packing group</b>              |  |      |
| · <b>DOT, ADR, IMDG, IATA</b>       |  | Void |

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- |  |                 |
|--|-----------------|
| <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
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**· TSCA (Toxic Substances Control Act):**

7631-86-9	Silicon dioxide, chemically prepared
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1344-28-1	Aluminum oxide
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1305-78-8	Calcium oxide
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1313-59-3	Sodium oxide
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14808-60-7	Quartz (SiO <sub>2</sub> )
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**· Proposition 65**

**· Chemicals known to cause cancer:**

14808-60-7	Quartz (SiO <sub>2</sub> )
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**· 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	
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14808-60-7	Quartz (SiO <sub>2</sub> )	A4
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14808-60-7	Quartz (SiO <sub>2</sub> )	A2
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**· NIOSH-Ca (National Institute for Occupational Safety and Health)**

14808-60-7	Quartz (SiO <sub>2</sub> )
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**· OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

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

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**Trade name: CRS Moisture / Oil / Dust-Removing Purifier, Cobalt-Free**

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· **Hazard pictograms**



GHS05

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

*Calcium oxide*

· **Hazard statements**

*Harmful to aquatic life with long lasting effects.*

*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.*

· **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.*

· **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)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*