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## 1 Identification

· **Product identifier:**

*This product is considered an article. This Material Safety Data Sheet is written based on the encapsulated substance or mixture in this article.*

*Gas purifying filter*

· **Trade name:** CRS AFS Purifier II

· **Article number:** 202950, 202903, 202904, 202930

· **SDS number:** 991058

· **Application of the substance / the mixture** Gas purification

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

*Chromatography Research Supplies, Inc.*

*2601 Technology Drive*

*Louisville, KY 40299 USA*

*sds@chromres.com*

· **Information department:** *Product safety department*

· **Emergency telephone number:**

*From U.S.A., Canada, Puerto Rico and U.S. Virgin Islands*

*+1-502-491-6300 8 am - 5 pm East Coast U.S. Time*

*+1-800-255-3924 ChemTel (24 Hours) Contract Number MIS3660977*

*From Outside the U.S.A., Canada, Puerto Rico or U.S. Virgin Islands*

*+01-813-248-0585 ChemTel (24 Hours)*

*Additional In-Country numbers:*

*China: 400-120-0751; Brazil: 0-800-591-6042; India: 000-800-100-4086; Mexico: 01-800-099-0731.*

## 2 Hazard(s) identification

· **Classification of the substance or mixture**



GHS08

*Carc. 1A H350 May cause cancer.*

· **Label elements**

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

· **Hazard pictograms**



GHS08

· **Signal word** *Danger*

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

*Quartz (SiO<sub>2</sub>)*

· **Hazard statements**

*H350 May cause cancer.*

· **Precautionary statements**

*Obtain special instructions before use.*

*Do not handle until all safety precautions have been read and understood.*

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

*IF exposed or concerned: Get medical advice/attention.*

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Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**· **NFPA ratings (scale 0 - 4)**

Health = 0

Fire = 1

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = \*0

Fire = 1

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:**

7440-44-0	Carbon	Combustible Dust	35-55%
14808-60-7	Quartz (SiO <sub>2</sub> )	Carc. 1A, H350	<2%

· **Additional Components**

1318-02-1	Zeolite		35-55%
1327-43-1	Magnesium aluminosilicate clay		3-8%

### 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.· **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.

### 5 Fire-fighting measures

· **Extinguishing media**· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.· **Special hazards arising from the substance or mixture** No further relevant information available.· **Advice for firefighters**· **Protective equipment:** No special measures required.US  
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## 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:**  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **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.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

14808-60-7	Quartz (SiO <sub>2</sub> )	0.075 mg/m <sup>3</sup>
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- **PAC-2:**

14808-60-7	Quartz (SiO <sub>2</sub> )	33 mg/m <sup>3</sup>
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- **PAC-3:**

14808-60-7	Quartz (SiO <sub>2</sub> )	200 mg/m <sup>3</sup>
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## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
  - Do not open cartridge. Contents may become hot on exposure to water.  
Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **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:** Keep receptacle tightly sealed.
- **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:**  
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.  
At this time, the remaining constituent has no known exposure limits.

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

PEL	Long-term value: 0.05* mg/m <sup>3</sup> *resp. dust; 30mg/m <sup>3</sup> /%SiO <sub>2</sub> +2
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

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- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Keep away from foodstuffs, beverages and feed.  
 Wash hands before breaks and at the end of work.  
 Store protective clothing separately.
- **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:** • Safety glasses with side shields

## \* 9 Physical and chemical properties

### · Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

<b>Form:</b>	Solid
<b>Color:</b>	Various colors
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	Not determined.

· **pH-value:** Not applicable.

#### · Change in condition

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not determined.

· **Ignition temperature:** >220 °C (>428 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

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- |                                                                        |                 |
|------------------------------------------------------------------------|-----------------|
| <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> (6.7 lbs/gal) |                 |
| <b>· Relative density:</b> Not determined.                             |                 |
| <b>· Vapor 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>                                                    |                 |
| <b>Dynamic:</b>                                                        | Not applicable. |
| <b>Kinematic:</b>                                                      | Not applicable. |
| <b>· Solvent content:</b>                                              |                 |
| <b>VOC content:</b>                                                    | 0.00 %          |
| <b>· Other information:</b> No further relevant information available. |                 |

## 10 Stability and reactivity

- **Reactivity:** No further relevant information available.
- **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:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:
- **Carcinogenic categories**

<b>· IARC (International Agency for Research on Cancer)</b>		
1318-02-1	Zeolite	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

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· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 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** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not hazardous for water.
- **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</b>          |                                     |
| · <b>Class</b>                        | Void                                |
|                                       |                                     |
| · <b>IATA</b>                         |                                     |
| · <b>Class</b>                        | Void                                |
|                                       | • Not applicable. See note 1 below. |
| · <b>Packing group</b>                |                                     |
| · <b>DOT, ADR, IMDG, IATA</b>         | Void                                |
| · <b>Environmental hazards:</b>       | Not applicable.                     |
| · <b>Special precautions for user</b> | Not applicable.                     |

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· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**      *Not applicable.*

· **Transport/Additional information:**      *Note 1: Under the UN classification for activated carbon, all activated carbons have been identified as a class 4.2 product. However, this product type or an equivalent has been tested according to the "United Nations Transport of Dangerous Good"s test protocol for a "self-heating substance" (United Nations Transportation of Dangerous Goods, Manual of Tests and Criteria, Part III, Section 33.3.1.6 - Test N.4 - Test Method for Self Heating Substances) and it has been specifically determined that this product type or an equivalent does not meet the definition of a self heating substance (class 4.2) or any other hazard class, and therefore should not be listed as a DOT hazardous material.*

· **UN "Model Regulation":**      *Void*

## 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):**

*None of the ingredients is listed.*

· **TSCA (Toxic Substances Control Act):**

1327-43-1	Magnesium aluminosilicate clay	ACTIVE
14808-60-7	Quartz (SiO <sub>2</sub> )	ACTIVE

· **Hazardous Air Pollutants**

*None of the ingredients is listed.*

· **Proposition 65**



**WARNING:** This product can expose you to chemicals including quartz (SiO<sub>2</sub>), which is known to the State of California to cause cancer. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

· **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.*

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· <b>TLV (Threshold Limit Value established by ACGIH)</b>		
14808-60-7	Quartz (SiO <sub>2</sub> )	A2
· <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>		
14808-60-7	Quartz (SiO <sub>2</sub> )	

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

· **Hazard pictograms**



GHS08

· **Signal word** Danger

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

Quartz (SiO<sub>2</sub>)

· **Hazard statements**

H350 May cause cancer.

· **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

IF exposed or concerned: Get medical advice/attention.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

· **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 SDS:** Product safety department

· **Contact:** Product Safety Department

· **Date of preparation / last revision** 08/06/2019 / -

· **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 Organisation

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)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

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vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Carc. IA: Carcinogenicity – Category IA

· **\* Data compared to the previous version altered.**

US