

Printing date 12/27/2017 Reviewed on 12/27/2017

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 ZPureTM H2O Filter; Model 500TM H2O Filter
- · Part numbers:

| 202230-4-PC | 202230L-SS | 202230RL-6-PC | 202230-SS-QC | 202231L-B-QC | 202231RL-SS-QC | 202RH2D-B-QC |
|---------------|----------------|-----------------|----------------|----------------|-----------------|----------------|
| 202230-6-PC | 202230L-SS-QC | 202230RL-B | 202230XL-4-PC | 202231L-SS-QC | 202231R-SS | 202RH2D-SS-QC |
| 202230-B | 202230M-V | 202230RL-B-QC | 202230XL-6-PC | 202231L-SS-QC | 202231R-SS-QC | 202RH2L-B-QC |
| 202230-B-QC | 202230R-4-PC | 202230RL-SS | 202230XL-B | 202231M-SS | 202231RXL-B | 202RH2L-SS-QC |
| 202230D-4-PC | 202230R-6-PC | 202230RL-SS-QC | 202230XL-B-QC | 202231M-SS-QC | 202231RXL-B-QC | 202RH2-SS-QC |
| 202230D-6-PC | 202230R-B | 202230R-SS | 202230XL-SS | 202231R-B | 202231RXL-SS | 202RH2XL-B-QC |
| 202230D-B | 202230R-B-QC | 202230R-SS-QC | 202230XL-SS-QC | 202231R-B-QC | 202231RXL-SS-QC | 202RH2XL-SS-QC |
| 202230D-B-QC | 202230RD-4-PC | 202230RXL-4-PC | 202231-B | 202231RD-B | 202231-SS | 202270-B |
| 202230D-SS | 202230RD-6-PC | 202230RXL-6-PC | 202231-B-QC | 202231RD-B-QC | 202231-SS-QC | 202272-B |
| 202230D-SS-QC | 202230RD-B | 202230RXL-B | 202231D-B | 202231RD-SS | 202231XL-B | 202270-SS |
| 202230L-4-PC | 202230RD-B-QC | 202230RXL-B-QC | 202231D-B-QC | 202231RD-SS-QC | 202231XL-B-QC | 202272-SS |
| 202230L-6-PC | 202230RD-SS | 202230RXL-SS | 202231D-SS-QC | 202231RL-B | 202231XL-SS | 991054 |
| 202230L-B | 202230RD-SS-QC | 202230RXL-SS-QC | 202231D-SS-QC | 202231RL-B-QC | 202231XL-SS-QC | |
| 202230L-B-QC | 202230RL-4-PC | 202230-SS | 202231L-B | 202231RL-SS | 202RH2-B-QC | |

· SDS number: 991054

- · 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.

Eye Irrit. 2B H320 Causes eye irritation.

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

(Contd. on page 2)

(Contd. of page 1)

Safety Data Sheet acc. to OSHA HCS

Printing date 12/27/2017 Reviewed on 12/27/2017

Trade name: CRS ZPure™ H2O Filter; Model 500™ H2O Filter

· Hazard pictograms



- · Signal word Danger
- · Hazard-determining components of labeling:

Quartz (SiO2)

· Hazard statements

H320 Causes eye irritation.

H350 May cause cancer.

· Precautionary statements

Obtain special instructions before use.

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

Wash thoroughly after handling.

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.

IF exposed or concerned: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Store locked up.

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

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



Health = 1 Fire = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)



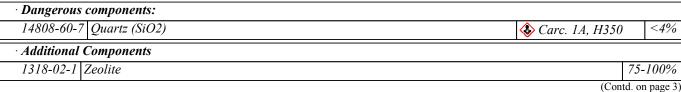
*1 Health = *1
0 Fire = 0

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.



age 3)

Printing date 12/27/2017 Reviewed on 12/27/2017

Trade name: CRS ZPure™ H2O Filter; Model 500™ H2O Filter

 (Contd. of page 2)

 1327-43-1 Magnesium aluminosilicate clay
 10-35%

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. If symptoms persist, consult a doctor.
- · After swallowing:

If ingestion of internal contents occurs, rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration and continue to rinse mouth with water. Seek medical attention immediately.

- · 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:
- CO2, 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.
- · Protective Action Criteria for Chemicals

| · PAC-1: | |
|--------------------------|--------------|
| 14808-60-7 Quartz (SiO2) | 0.075 mg/m3 |
| PAC-2: | |
| 14808-60-7 Quartz (SiO2) | 33 mg/m3 |
| · PAC-3: | |
| 14808-60-7 Quartz (SiO2) | 200 mg/m3 |

7 Handling and storage

- · Handling:
- Precautions for safe handling Do not open cartridge. Contents may become hot on exposure to water.
- Information about protection against explosions and fires: No special measures required.

(Contd. on page 4)

Printing date 12/27/2017 Reviewed on 12/27/2017

Trade name: CRS ZPureTM H2O Filter; Model 500TM H2O Filter

(Contd. of page 3)

- · 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:

14808-60-7 Quartz (SiO2)

PEL see Quartz listing

REL Long-term value: 0.05* mg/m³

*respirable dust; See Pocket Guide App. A

TLV Long-term value: 0.025* mg/m³

*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:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

- · Breathing equipment: Not required.
- · 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

·US ·

Printing date 12/27/2017 Reviewed on 12/27/2017

Trade name: CRS ZPureTM H2O Filter; Model 500TM H2O Filter

(Contd. of page 4)

| | (Contd. of p |
|--|---|
| Division of the section of the secti | |
| Physical and chemical prope | rties |
| Information on basic physical and | chemical properties |
| General Information | |
| Appearance: | |
| Form: | Solid |
| Color: | According to product specification |
| Odor: Odor threshold: | Characteristic Not determined. |
| | *************************************** |
| pH-value: | Not applicable. |
| Change in condition | |
| Melting point/Melting range: | Undetermined. |
| Boiling point/Boiling range: | Undetermined. |
| Flash point: | Not applicable. |
| Flammability (solid, gaseous): | Not determined. |
| Ignition temperature: | not applicable |
| Decomposition temperature: | Not determined. |
| Auto igniting: | Product is not selfigniting. |
| Danger of explosion: | Product does not present an explosion hazard. |
| Explosion limits: | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| Vapor pressure: | Not applicable. |
| Density at 20 °C (68 °F): | 0.8 g/cm³ (6.7 lbs/gal) |
| Relative density | Not determined. |
| Vapor density | Not applicable. |
| Evaporation rate | Not applicable. |
| Solubility in / Miscibility with | |
| Water: | Fully miscible. |
| Partition coefficient (n-octanol/wa | ter): Not determined. |
| Viscosity: | |
| Dynamic: | Not applicable. |
| Kinematic: | Not applicable. |
| Solvent content: | |
| Organic solvents: | 0.0 % |
| Other information | 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.

(Contd. on page 6)

Printing date 12/27/2017 Reviewed on 12/27/2017

Trade name: CRS ZPureTM H2O Filter; Model 500TM H2O Filter

(Contd. of page 5)

· 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: Irritating effect.
- · 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

| · IARC (International Agency for Research on Cancer) | |
|---|---|
| 1318-02-1 Zeolite | 3 |
| 14808-60-7 Quartz (SiO2) | 1 |
| · NTP (National Toxicology Program) | |
| 14808-60-7 Quartz (SiO2) | K |
| 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 known to be hazardous to 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.

HS

Printing date 12/27/2017 Reviewed on 12/27/2017

Trade name: CRS ZPure™ H2O Filter; Model 500™ H2O Filter

(Contd. of page 6)

| UN-Number DOT, ADR, ADN, IMDG, IATA | Void | |
|---|-------------------------------|--|
| UN proper shipping name DOT, ADR, ADN, IMDG, IATA | Void | |
| Transport hazard class(es) | | |
| DOT, ADR, ADN, IMDG, IATA Class | Void | |
| Packing group DOT, ADR, IMDG, IATA | Void | |
| Environmental hazards: Marine pollutant: | No | |
| Special precautions for user | Not applicable. | |
| Transport in bulk according to Annex II of M and the IBC Code | ARPOL73/78 Not applicable. | |
| UN "Model Regulation": | Void | |

15 Regulatory information

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

| C4' | 255 (1 | 1 1 | | | _ |
|-----------|-------------|--------------------|----------|--------------|---|
| · Nection | TYY I PYTEP | ท <i>อ</i> เง ทสรส | าทสกบร ร | 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

14808-60-7 Quartz (SiO2)

- Proposition 65
- · Chemicals known to cause cancer:

14808-60-7 Quartz (SiO2)

· 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)

14808-60-7 Quartz (SiO2)

A2

(Contd. on page 8)

Printing date 12/27/2017 Reviewed on 12/27/2017

Trade name: CRS ZPure™ H2O Filter; Model 500™ H2O Filter

(Contd. of page 7)

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

14808-60-7 Quartz (SiO2)

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



- · Signal word Danger
- · Hazard-determining components of labeling:

Quartz (SiO2)

· Hazard statements

H320 Causes eye irritation.

H350 May cause cancer.

· Precautionary statements

Obtain special instructions before use.

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

Wash thoroughly after handling.

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

IF exposed or concerned: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Store locked up.

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

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 12/27/2017 / -
- · 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)

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

(Contd. on page 9)

Printing date 12/27/2017 Reviewed on 12/27/2017

Trade name: CRS ZPure™ H2O Filter; Model 500™ H2O Filter

(Contd. of page 8)

PEL: Permissible Exposure Limit REL: Recommended Exposure Limit

Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B Carc. 1A: Carcinogenicity – Category 1A

* Data compared to the previous version altered.