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: Restek Indicating Moisture Trap
· Article number: 22014, 22015
· Application of the substance / the mixture Purifying gas.

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).
  Hazard pictograms
  GHS08

· Signal word Danger

· Hazard-determining components of labeling:
  Quartz (SiO2)

· Hazard statements
  Causes eye irritation.
  May cause cancer.

· Precautionary statements
  Wear protective gloves/protective clothing/eye protection/face protection.
  Wash thoroughly after handling.
  Obtain special instructions before use.
  Do not handle until all safety precautions have been read and understood.
  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.

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Trade name: Restek Indicating Moisture Trap

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- Classification system:
  - NFPA ratings (scale 0 - 4)
    
    HEALTH: 1  
    Fire: 0  
    Reactivity: 0
  
  - HMIS-ratings (scale 0 - 4)
    
    HEALTH: 1  
    Fire: 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.

<table>
<thead>
<tr>
<th>Dangerous components:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1318-02-1 Zeolite</td>
<td>Eye Irrit. 2B, H320</td>
</tr>
<tr>
<td>14808-60-7 Quartz (SiO2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>60-90%</td>
</tr>
</tbody>
</table>

- Additional Components
  
<table>
<thead>
<tr>
<th>Additional Components</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7631-86-9 Silicon dioxide, chemically prepared</td>
<td>15-45%</td>
</tr>
<tr>
<td>1327-43-1 Magnesium aluminosilicate clay</td>
<td>5-15%</td>
</tr>
<tr>
<td>7786-30-3 Magnesium Dichloride</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>10125-13-0 Copper (II) chloride dihydrate</td>
<td>&lt;0.1%</td>
</tr>
<tr>
<td></td>
<td>[Acute Tox. 3, H301; Skin Irrit. 2, H315; Eye Irrit. 2B, H320; Aquatic Acute 3, H402]</td>
</tr>
</tbody>
</table>

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 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.

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.
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:
    No special precautions are necessary if used correctly.
  · 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:
  · 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:

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>14808-60-7 Quartz (SiO2)</td>
<td>PEL see Quartz listing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>REL Long-term value: 0.05* mg/m³</td>
<td>*respirable dust; See Pocket Guide App. A</td>
</tr>
<tr>
<td></td>
<td>TLV Long-term value: 0.025* mg/m³</td>
<td>*as respirable fraction</td>
</tr>
</tbody>
</table>
· 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

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.

Change in condition

- Melting point/Melting range: Undetermined.
- Boiling point/Boiling range: Undetermined.

Flash point: Not applicable.

Flammability (solid, gaseous): Not determined.

Ignition temperature: > 370 °C (> 698 °F)

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 (6.676 lbs/gal)

Relative density Not determined.

Vapour density Not applicable.

Evaporation rate Not applicable.
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: 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
    7631-86-9 Silicon dioxide, chemically prepared 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.
Safety Data Sheet
acc. to OSHA HCS

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· Behavior in environmental systems:
· Bioaccumulative potential Does not accumulate in organisms
· 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.

14 Transport information

· 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 Void
· 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 MARPOL 73/78 and the IBC Code
· Not applicable.

· UN "Model Regulation": -

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.

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Trade name: Restek Indicating Moisture Trap

- **Section 313 (Specific toxic chemical listings):**
  None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act):**
  - 7631-86-9 Silicon dioxide, chemically prepared
  - 1327-43-1 Magnesium aluminosilicate clay
  - 14808-60-7 Quartz (SiO2)
  - 7786-30-3 Magnesium Dichloride

- **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
  - **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**
  - GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**
  Quartz (SiO2)

- **Hazard statements**
  Harmful to aquatic life with long lasting effects.
  Causes eye irritation.
  May cause cancer.

- **Precautionary statements**
  Wear protective gloves/protective clothing/eye protection/face protection.
  Wash thoroughly after handling.
  Obtain special instructions before use.
  Do not handle until all safety precautions have been read and understood.
  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

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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

* Date of preparation / last revision: 12/11/2015 / -

* 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)
  - Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B
  - Carc. 1A: Carcinogenicity, Hazard Category 1A

* Data compared to the previous version altered.