SECTION 1: Identification

1.1 Product identifier
Trade name
Crystal Defoamer
Other means of identification
Product code(s): 1321
Formula code: 02-040427

1.2 Relevant identified uses
Relevant identified uses
General use

1.3 Details of the supplier of the safety data sheet
MasterBlend • 5285 Fox Street • CO 80216 Denver • United States •
Telephone: 303.373.0702 • Telefax 303.373.4968 • e-mail: info@masterblend.net • Website: masterblend.net

1.4 Emergency telephone number
Chem-Tel 1.800.255.3924 (USA & Canada) 1.813.248.0585 (International)

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture
Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)
This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

2.2 Label elements
Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)
not required

2.3 Other hazards
There is no additional information.

SECTION 3: Composition/information on ingredients

3.1 Substances
not relevant (mixture)

3.2 Mixtures

3.2.1

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>Identifier</th>
<th>Wt%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>CAS No 7647-14-5</td>
<td>≥ 90</td>
</tr>
<tr>
<td>Sodium sulphate</td>
<td>CAS No 7757-82-6</td>
<td>5 - &lt; 15</td>
</tr>
<tr>
<td>Methylated silica</td>
<td>CAS No 6776-90-7</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Polydimethylsiloxane</td>
<td>CAS No 63148-62-9</td>
<td>&lt; 1</td>
</tr>
</tbody>
</table>

For full text of abbreviations: see SECTION 16.
SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes
Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation
If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact
Brush off loose particles from skin. - Rinse skin with water/shower.

Following eye contact
Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion
Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed
Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed
none

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media
- water, foam, alcohol resistant foam, ABC-powder

Unsuitable extinguishing media
- water jet

5.2 Special hazards arising from the substance or mixture
Deposited combustible dust has considerable explosion potential.

Hazardous combustion products
- nitrogen oxides (NOx), carbon monoxide (CO), carbon dioxide (CO2)

5.3 Advice for firefighters
In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.
SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
   For non-emergency personnel
   Remove persons to safety.
   For emergency responders
   Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions
   Keep away from drains, surface and ground water. Retain contaminated washing water and dispose it.

6.3 Methods and material for containment and cleaning up
   Advices on how to contain a spill
   Covering of drains. - Take up mechanically.
   Advices on how to clean up a spill
   Take up mechanically.

   Other information relating to spills and releases
   Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

SECTION 7: Handling and storage

7.1 Precautions for safe handling
   Recommendations
   Measures to prevent fire as well as aerosol and dust generation
   Use local and general ventilation. Take precautionary measures against static discharge. Use only in well-ventilated areas. Ground/bond container and receiving equipment.
   Warning
   Dust deposits may accumulate on all deposition surfaces in a technical room. The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.
   Advice on general occupational hygiene
   Wash hands after use. Do not to eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingsuffs.

7.2 Conditions for safe storage, including any incompatibilities
   Managing of associated risks
   • Explosive atmospheres
     Removal of dust deposits.
   Incompatible substances or mixtures
   Observe compatible storage of chemicals.
Consideration of other advice

Ventilation requirements
Use local and general ventilation.

7.3 Specific end use(s)
See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

<table>
<thead>
<tr>
<th>Country</th>
<th>Name of agent</th>
<th>CAS No</th>
<th>Identifier</th>
<th>TWA [ppm]</th>
<th>TWA [mg/m³]</th>
<th>STEL [ppm]</th>
<th>STEL [mg/m³]</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>particulates not otherwise regulated (PNOR)</td>
<td></td>
<td>PEL</td>
<td>1,766</td>
<td>15</td>
<td></td>
<td></td>
<td>29 CFR OSHA</td>
</tr>
<tr>
<td>US</td>
<td>particulates not otherwise regulated (PNOR)</td>
<td></td>
<td>PEL</td>
<td>529.5</td>
<td>5</td>
<td></td>
<td></td>
<td>29 CFR OSHA</td>
</tr>
</tbody>
</table>

Note: STEL - Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified.

TWA - Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average.

Relevant DNELs/DMELs/PNECs and other threshold levels
No data available.

8.2 Exposure controls

Appropriate engineering controls
General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection
Wear eye/face protection.

Skin protection
• hand protection
Wear protective gloves.

• other protection measures
Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection
Particulate filter device (EN 143).

Environmental exposure controls
Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.
SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance
Physical state: solid
Color: different
Odor: characteristic

Other physical and chemical parameters
- pH (value): 8 (1% solution)
- Melting point/freezing point: not determined
- Initial boiling point and boiling range: not determined
- Flash point: not applicable
- Evaporation rate: not determined
- Flammability (solid, gas)
- Explosion limits of dust clouds: not determined
- Vapor pressure: not determined
- Density: not determined
- Relative density: not determined
- Solubility(ies): not determined
- Auto-ignition temperature: >400 °C
- Viscosity: not relevant (solid matter)
- Explosive properties: none
- Oxidizing properties: none

SECTION 10: Stability and reactivity

10.1 Reactivity
Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability
See below "Conditions to avoid".

10.3 Possibility of hazardous reactions
No known hazardous reactions.

10.4 Conditions to avoid
There are no specific conditions known which have to be avoided.

Hints to prevent fire or explosion
The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.
Physical stresses which might result in a hazardous situation and have to be avoided
strong shocks

10.5 Incompatible materials
There is no additional information.

10.6 Hazardous decomposition products
Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and
heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Test data are not available for the complete mixture.

Classification procedure
The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)
not relevant

Acute toxicity
Shall not be classified as acutely toxic.

Acute toxicity of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Exposure route</th>
<th>ATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium sulphate</td>
<td>7757-82-6</td>
<td>inhalation: dust/mist</td>
<td>&gt;2.4</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation
Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitization
Shall not be classified as a respiratory or skin sensitizer.

Summary of evaluation of the CMR properties
Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant.

Carcinogenicity
• National Toxicology Program (United States): none of the ingredients are listed
• IARC Monographs none of the ingredients are listed

Specific target organ toxicity (STOT)
Shall not be classified as a specific target organ toxicant.

Aspiration hazard
Shall not be classified as presenting an aspiration hazard.
 SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute)

Aquatic toxicity (acute) of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Endpoint</th>
<th>Value</th>
<th>Species</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium chloride</td>
<td>7647-14-5</td>
<td>LC50</td>
<td>5,840 mg/l</td>
<td>fish</td>
<td>96 hours</td>
</tr>
<tr>
<td>sodium sulphate</td>
<td>7757-82-6</td>
<td>LC50</td>
<td>7,960 mg/l</td>
<td>fish</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

Aquatic toxicity (chronic)

Aquatic toxicity (chronic) of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Endpoint</th>
<th>Value</th>
<th>Species</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium chloride</td>
<td>7647-14-5</td>
<td>LC50</td>
<td>874 mg/l</td>
<td>aquatic invertebrates</td>
<td>24 h</td>
</tr>
<tr>
<td>sodium chloride</td>
<td>7647-14-5</td>
<td>EC50</td>
<td>2,430 mg/l</td>
<td>algae</td>
<td>120 h</td>
</tr>
<tr>
<td>sodium sulphate</td>
<td>7757-82-6</td>
<td>LC50</td>
<td>&gt;8,080 mg/l</td>
<td>fish</td>
<td>24 h</td>
</tr>
<tr>
<td>sodium sulphate</td>
<td>7757-82-6</td>
<td>EC50</td>
<td>1,698 mg/l</td>
<td>aquatic invertebrates</td>
<td>7 d</td>
</tr>
</tbody>
</table>

Biodegradation

The relevant substances of the mixture are readily biodegradable.

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

Bioaccumulative potential of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>BCF</th>
<th>Log KOW</th>
<th>BOD5/COD</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium sulphate</td>
<td>7757-82-6</td>
<td>0.5</td>
<td>-4.38</td>
<td></td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Other adverse effects

Data are not available.
SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information
Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages
Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks
Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number (not subject to transport regulations)
14.2 UN proper shipping name not relevant
14.3 Transport hazard class(es)
   Class -
14.4 Packing group not relevant
14.5 Environmental hazards none (non-environmentally hazardous acc. to the dangerous goods regulations)
14.6 Special precautions for user
   There is no additional information.
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
   The cargo is not intended to be carried in bulk.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Industry or sector specific available guidance(s)

NPCA-HMIS® III
Hazardous Materials Identification System (American Coatings Association)

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic</td>
<td>/</td>
<td>None.</td>
</tr>
<tr>
<td>Health</td>
<td>0</td>
<td>No significant risk to health.</td>
</tr>
<tr>
<td>Flammability</td>
<td>1</td>
<td>Material that must be preheated before ignition can occur.</td>
</tr>
<tr>
<td>Physical hazard</td>
<td>0</td>
<td>Material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive.</td>
</tr>
<tr>
<td>Personal protective equipment</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>
### NFPA® 704

<table>
<thead>
<tr>
<th>Category</th>
<th>Degree of hazard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>1</td>
<td>Material that must be preheated before ignition can occur.</td>
</tr>
<tr>
<td>Health</td>
<td>0</td>
<td>Material that, under emergency conditions, would offer no hazard beyond that of ordinary combustible material.</td>
</tr>
<tr>
<td>Instability</td>
<td>0</td>
<td>Material that is normally stable, even under fire conditions.</td>
</tr>
</tbody>
</table>

### Abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbr.</th>
<th>Descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE</td>
<td>Acute Toxicity Estimate</td>
</tr>
<tr>
<td>BCF</td>
<td>BioConcentration Factor</td>
</tr>
<tr>
<td>BOD</td>
<td>Biochemical Oxygen Demand</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)</td>
</tr>
<tr>
<td>CMR</td>
<td>Carcinogenic, Mutagenic or toxic for Reproduction</td>
</tr>
<tr>
<td>COD</td>
<td>chemical oxygen demand</td>
</tr>
<tr>
<td>DMEL</td>
<td>Derived Minimal Effect Level</td>
</tr>
<tr>
<td>DNEL</td>
<td>Derived No-Effect Level</td>
</tr>
<tr>
<td>GHS</td>
<td>&quot;Globally Harmonized System of Classification and Labelling of Chemicals&quot; developed by the United Nations</td>
</tr>
<tr>
<td>HMIS</td>
<td>Hazardous Materials Identification System</td>
</tr>
<tr>
<td>IARC Monographs</td>
<td>IARC Monographs on the Evaluation of Carcinogenic Risks to Humans</td>
</tr>
<tr>
<td>log KOW</td>
<td>n-octanol/water</td>
</tr>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution from Ships (abbr. of &quot;Marine Pollutant&quot;)</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration (United States)</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>PEL</td>
<td>permissible exposure limit</td>
</tr>
<tr>
<td>PNEC</td>
<td>Predicted No-Effect Concentration</td>
</tr>
<tr>
<td>ppm</td>
<td>parts per million</td>
</tr>
<tr>
<td>STEL</td>
<td>short-term exposure limit</td>
</tr>
<tr>
<td>TWA</td>
<td>time-weighted average</td>
</tr>
<tr>
<td>vPvB</td>
<td>very Persistent and very Bioaccumulative</td>
</tr>
</tbody>
</table>

**SECTION 16: Other information, including date of preparation or last revision**

**Abbreviations and acronyms**
Key literature references and sources for data

Classification procedure
Physical and chemical properties: The classification is based on tested mixture.
Health hazards/Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Disclaimer
This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.