1. Identification

Product identifier Solder Seal/Gunk Liquid Boiler Seal

Other means of identification
- SDS number: B232
- Part No.: B232
- Tariff code: 2839.19.0000

Recommended use Sealer

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer
- Company name: RSC Chemical Solutions
- Address: 600 Radiator Road
  Indian Trail, NC 28079
  United States
- Telephone: Customer Service: (704) 821-7643
  Technical: (704) 684-1811
- Website: www.rscbrands.com
- E-mail: Not available.
- Emergency phone number: Emergency Telephone: (303) 623-5716
  Emergency Contact: RMPDC (877-740-5015)

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards
- Acute toxicity, oral Category 4
- Acute toxicity, inhalation Category 4
- Sensitization, respiratory Category 1

Environmental hazards
- Hazardous to the aquatic environment, acute hazard Category 1
- Hazardous to the aquatic environment, long-term hazard Category 1

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Harmful if swallowed. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. In case of inadequate ventilation wear respiratory protection.

Response If swallowed: Call a poison center/doctor if you feel unwell. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. Rinse mouth. If experiencing respiratory symptoms: Call a poison center/doctor. Collect spillage.

Storage Store away from incompatible materials.

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

Hazard(s) not otherwise classified (HNOC) None known.
Supplemental information

0.54% of the mixture consists of component(s) of unknown acute oral toxicity. 35.54% of the mixture consists of component(s) of unknown acute inhalation toxicity. 1.31% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 1.61% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Silicate</td>
<td></td>
<td>1344-09-8</td>
<td>30 - &lt; 40</td>
</tr>
<tr>
<td>Glutar Aldehyde</td>
<td></td>
<td>111-30-8</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Other components below reportable levels</td>
<td></td>
<td></td>
<td>60 - &lt; 70</td>
</tr>
</tbody>
</table>

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Skin contact
Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact
Rinse with water. Get medical attention if irritation develops and persists.

Ingestion
Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.

Most important symptoms/effects, acute and delayed
Difficulty in breathing.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media
Powder. Foam. Carbon dioxide (CO2).

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
Move containers from fire area if you can do so without risk.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards
No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of vapors and spray mists. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up
Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions
Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

7. Handling and storage
Precautions for safe handling
Avoid inhalation of vapors and spray mists. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities
Store in original tightly closed container. Store in a well-ventilated place. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection
Occupational exposure limits
<table>
<thead>
<tr>
<th>US. ACGIH Threshold Limit Values</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glutar Aldehyde (CAS 111-30-8)</td>
<td>Ceiling</td>
<td>0.05 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. NIOSH: Pocket Guide to Chemical Hazards</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glutar Aldehyde (CAS 111-30-8)</td>
<td>Ceiling</td>
<td>0.8 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.2 ppm</td>
</tr>
</tbody>
</table>

Biological limit values
No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. General ventilation normally adequate.

Individual protection measures, such as personal protective equipment
Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin protection
Hand protection
Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other
Wear suitable protective clothing.

Respiratory protection
Wear positive pressure self-contained breathing apparatus (SCBA). Dust & vapor respirator.

Thermal hazards
Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations
Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties
Appearance
Hazy

Physical state
Liquid.

Form
Liquid.

Color
Not available.

Odor
Not available.

Odor threshold
Not available.

pH
Not available.

Melting point/freezing point
Not available.

Initial boiling point and boiling range
Not available.

Flash point
Not available.

Evaporation rate
Not available.

Flammability (solid, gas)
Not applicable.
Upper/lower flammability or explosive limits

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability limit - lower (%)</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability limit - upper (%)</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive limit - lower (%)</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive limit - upper (%)</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Vapor pressure 0.00001 hPa estimated

Vapor density Not available.

Relative density Not available.

Solubility Not available.

Partition coefficient Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>11.79 lbs/gal estimated</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not oxidizing</td>
</tr>
<tr>
<td>Percent volatile</td>
<td>60.25 % estimated</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.41 estimated</td>
</tr>
<tr>
<td>VOC (Weight %)</td>
<td>0.77 % estimated</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

Conditions to avoid Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Route</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No adverse effects due to skin contact are expected.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Direct contact with eyes may cause temporary irritation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Harmful if swallowed.</td>
</tr>
</tbody>
</table>

Symptoms related to the physical, chemical and toxicological characteristics Difficulty in breathing.

Information on toxicological effects

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harmful if inhaled. Harmful if swallowed.</td>
<td></td>
</tr>
</tbody>
</table>

Components Species Test Results

<table>
<thead>
<tr>
<th>Component</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glutar Aldehyde (CAS 111-30-8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>2560 mg/kg</td>
</tr>
</tbody>
</table>
### Components

<table>
<thead>
<tr>
<th>Test Results</th>
<th>Species</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inhalation</strong></td>
<td>LC50</td>
<td>Rat</td>
</tr>
<tr>
<td>24 mg/l, 4 Hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Oral</strong></td>
<td>LD50</td>
<td>Mouse</td>
</tr>
<tr>
<td>100 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50</td>
<td>Rat</td>
</tr>
<tr>
<td>96.1 mg/kg</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sodium Silicate (CAS 1344-09-8)**

**Acute**

<table>
<thead>
<tr>
<th>Test Results</th>
<th>Species</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td>Mouse</td>
<td></td>
</tr>
<tr>
<td>1100 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td>1.1 g/kg</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation**

Prolonged skin contact may cause temporary irritation.

**Serious eye damage/eye irritation**

Direct contact with eyes may cause temporary irritation.

**Respiratory or skin sensitization**

**ACGIH sensitization**

Glutar Aldehyde (CAS 111-30-8) Sensitizer.

**Respiratory sensitization**

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Skin sensitization**

This product is not expected to cause skin sensitization.

**Germ cell mutagenicity**

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity**

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.


Not listed.

**Reproductive toxicity**

This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure**

Not classified.

**Specific target organ toxicity - repeated exposure**

Not classified.

**Aspiration hazard**

Not an aspiration hazard.

**Chronic effects**

Prolonged inhalation may be harmful.

### 12. Ecological information

**Ecotoxicity**

Very toxic to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sodium Silicate (CAS 1344-09-8)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Ceriodaphnia dubia)</td>
</tr>
<tr>
<td>0.28 - 0.57 mg/l, 48 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Western mosquitofish (Gambusia affinis)</td>
</tr>
<tr>
<td>1800 mg/l, 96 hours</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

**Persistence and degradability**

No data is available on the degradability of this product.

**Bioaccumulative potential**

No data available.

**Mobility in soil**

No data available.

**Other adverse effects**

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

**Disposal instructions**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Dispose in accordance with all applicable regulations.

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

| UN number | Not available. |
| UN proper shipping name | Consumer commodity (Dowicil A) |
| Transport hazard class(es) | ORM-D |
| Class | ORM-D |
| Subsidiary risk | None |
| Label(s) | Not applicable. |
| Packing group | Read safety instructions, SDS and emergency procedures before handling. |
| Special precautions for user | 156, 306 |
| Packaging exceptions | 156, 306 |
| Packaging non bulk | None |
| Packaging bulk | |

IATA

| UN number | UN3082 |
| UN proper shipping name | Environmentally hazardous substance, liquid, n.o.s. |
| Transport hazard class(es) | 9 |
| Class | 9 |
| Subsidiary risk | - |
| Packing group | III |
| Environmental hazards | No. |
| ERG Code | 9L |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Other information | Allowed. |
| Passenger and cargo aircraft | Allowed. |
| Cargo aircraft only | |

IMDG

| UN number | UN3082 |
| UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |
| Transport hazard class(es) | 9 |
| Class | 9 |
| Subsidiary risk | - |
| Packing group | III |
| Environmental hazards | No. |
| Marine pollutant | |
| EmS | F-A, S-F |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not established. |
15. Regulatory information

**US federal regulations**
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

- **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**
  Not regulated.
- **CERCLA Hazardous Substance List (40 CFR 302.4)**
  Not listed.
- **SARA 304 Emergency release notification**
  Not regulated.
  Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**
- **Hazard categories**
  - Immediate Hazard - Yes
  - Delayed Hazard - No
  - Fire Hazard - No
  - Pressure Hazard - No
  - Reactivity Hazard - No

  **SARA 302 Extremely hazardous substance**
  Not listed.

  **SARA 311/312 Hazardous chemical**
  No

  **SARA 313 (TRI reporting)**
  Not regulated.

**Other federal regulations**
- **Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**
  Not regulated.
- **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**
  Not regulated.
- **Safe Drinking Water Act (SDWA)**
  Not regulated.

**US state regulations**
- **US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**
  Not listed.
- **US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**
  Glutar Aldehyde (CAS 111-30-8)
- **US. Massachusetts RTK - Substance List**
  Glutar Aldehyde (CAS 111-30-8)
- **US. New Jersey Worker and Community Right-to-Know Act**
  Glutar Aldehyde (CAS 111-30-8)
- **US. Pennsylvania Worker and Community Right-to-Know Law**
  Glutar Aldehyde (CAS 111-30-8)
- **US. Rhode Island RTK**
  Not regulated.
- **US. California Proposition 65**
  WARNING: This product contains a chemical known to the State of California to cause cancer.
### International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*“Yes” indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

*“No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).*

### 16. Other information, including date of preparation or last revision

**Issue date**  05-27-2015

**Version #**  01

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.