Safety Data Sheet

SECTION 1: Identification

1.1 Product identifier
   Product name: MetalSolve Low Foaming Metal Cleaner-Degreaser
   Product number: 913
   Brand: Crown Chemical, Inc.

1.2 Other means of identification
   MetalSolve Low Foaming Metal Cleaner-Degreaser

1.3 Recommended use of the chemical and restrictions on use
   Metal cleaning

1.4 Supplier’s details
   Name: Crown Chemical, Inc.
   Address: 4701 W. 136th. St.
            Crestwood, Illinois 60418
            U.S.A.
   Telephone: 708-371-6990
   Fax: 708-371-6992
   email: info@crown-chem.com

1.5 Emergency phone number(s)
   800-535-5053

SECTION 2: Hazard identification

General hazard statement
Causes skin irritation; Causes serious eye irritation

2.1 Classification of the substance or mixture

GHS classification in accordance with: (US) OSHA (29 CFR 1910.1200)
- Skin corrosion/irritation, Cat. 2
- Eye damage/irritation, Cat. 2A

2.2 GHS label elements, including precautionary statements

Pictogram

1. Exclamation mark

Signal word
Warning

Hazard statement(s)
H315 Causes skin irritation
H319 Causes serious eye irritation
Precautionary statement(s)

P264 Wash hands & skin thoroughly after handling.
P280 Wear eye protection/face protection/protective gloves.
P302+P352 IF ON SKIN: Wash with plenty of water/Take off immediately contaminated clothing and wash it before reuse. Call a poison control center or doctor for treatment advice if irritation persists.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

2.3 Other hazards which do not result in classification

None identified

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Irritant Mixture

Components

1. 2-Butoxyethanol
Concentration 10 - 15 % (By Weight)
EC no. 203-905-0
CAS no. 111-76-2
Index no. 603-014-00-0

- Skin corrosion/irritation, Cat. 2
- Serious eye damage/eye irritation, Cat. 2
- Acute toxicity, dermal, Cat. 4
- Acute toxicity, inhalation, Cat. 4
- Acute toxicity, oral, Cat. 4

H302 Harmful if swallowed
H312 Harmful in contact with skin
H315 Causes skin irritation
H319 Causes serious eye irritation
H332 Harmful if inhaled

Trade secret statement (OSHA 1910.1200(i))
The specific chemical identities and/or actual concentrations for one or more components are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice
Do not breathe dust or mists. Wear protective rubber gloves and chemical splash goggles when using this product. Mix ONLY with water. Wash thoroughly after handling.

If inhaled
Remove person to fresh air and keep comfortable for breathing. Call a Poison Control Center or doctor for treatment advice.

In case of skin contact
Wash with plenty of water. Take off contaminated clothing and wash before reuse. Call a Poison Control Center or doctor for treatment advice if irritation persists.

In case of eye contact
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a Poison Control Center or doctor for treatment advice.
If swallowed
Rinse out mouth. Do NOT induce vomiting. Call a Poison Control Center or doctor if you feel unwell.

Personal protective equipment for first-aid responders
Self-contained breathing apparatus.

4.2 Most important symptoms/effects, acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

4.3 Indication of immediate medical attention and special treatment needed, if necessary
Treat exposure symptomatically. In all cases where large quantities have been ingested or inhaled, contact a doctor or Poison Control Center immediately.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media
Use water spray, fog or foam.

5.2 Specific hazards arising from the chemical
None known

5.3 Special protective actions for fire-fighters
Wear self-contained breathing apparatus for firefighting if necessary.

Further information
Remove all persons from the vicinity. No responsive action should be taken without proper training.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Initiate spill containment procedures immediately using containment or absorption methods. Keep people away from area. Put on appropriate protective equipment (see Section 8).

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Do not allow spilled material to enter sewers, waterways or soil. Neutralize with water. Mop, sweep or otherwise collect spilled material and hold for disposal. Consult local government authorities for allowable disposal methods. After removal, rinse area completely with water to remove residue.

Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid contact with eyes, skin or clothing. Avoid inhalation of dust or mists. Use in a well ventilated area. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities
Keep out of reach of children. Keep containers tightly closed when not in use. Store in a well ventilated area between 60-100°F (15- 38°C). Avoid ignition sources.

Specific end use(s)
Apart from the uses mentioned in section 1 no other specific uses are stipulated.
SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. 2-Butoxyethanol (CAS: 111-76-2 EC: 203-905-0)
   PEL (Inhalation): 240 mg/m3 (OSHA)
   OSHA Annotated Table Z-1, www.osha.gov
   PEL (Inhalation): 20 ppm (Cal/OSHA)
   OSHA Annotated Table Z-1, www.osha.gov
   REL (Inhalation): 5 ppm (NIOSH)
   OSHA Annotated Table Z-1, www.osha.gov
   PEL (Inhalation): 20 ppm
   97 mg/m3
   California permissible exposure limits for chemical contaminants
   (Title 8, Article 107)/Skin
   TWA (Inhalation): 50 ppm
   240 mg/m3; USA (OSHA)
   USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air
   Contaminants/Skin designation
   The value in mg/m3 is approximate
   TWA (Inhalation): 5 ppm
   24 mg/m3; USA (NIOSH)
   USA. NIOSH Recommended Exposure Limits/Potential for dermal absorption
   TWA (Inhalation): 20 ppm; USA (ACGIH)
   USA. ACGIH Threshold Limit Values (TLV)/Upper Respiratory Tract irritation Eye irritation Substances for which there is a
   Biological Exposure Index or Indices (see BEI® section) Confirmed animal carcinogen with unknown relevance to humans
   TLV® (Inhalation): 20 ppm; USA (ACGIH)
   OSHA Annotated Table Z-1, www.osha.gov

8.2 Appropriate engineering controls

Use with adequate ventilation to maintain exposure limits below listed thresholds.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
Wear chemical splash goggles or face shield when using this product.

Skin protection
Wear protective rubber gloves and a long sleeved shirt to prevent contact.

Body protection
Wash thoroughly after use and before eating, smoking, or using the bathroom. Avoid contamination of clothing or shoes,
and wash any contaminated items before reuse. If possible, avoid wearing contact lenses when using this product.

Respiratory protection
If inhalable particles of dusts or mists may occur during use, wear NIOSH approved respiratory protection.

Thermal hazards
No data available.

Environmental exposure controls
Do not let product enter drains.
SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance/form (physical state, color, etc.)</td>
<td>Amber liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available.</td>
</tr>
<tr>
<td>pH</td>
<td>&lt;11.5 (1% solution)</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>N/A / &lt;0°F</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Non-Combustible</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>N/A</td>
</tr>
<tr>
<td>Upper/lower flammability limits</td>
<td>No data available.</td>
</tr>
<tr>
<td>Upper/lower explosive limits</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available.</td>
</tr>
<tr>
<td>Vapor density</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>Relative density</td>
<td>&gt;1.0</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>100% in 120°F Water</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>&gt;1.0</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available.</td>
</tr>
</tbody>
</table>

Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Product is not reactive under normal storage and usage conditions. Mix this product ONLY with water.

10.2 Chemical stability

Product is stable under normal storage and usage conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Heat, flames and sparks. Incompatible products. Keep away from open flames, hot surfaces and sources of ignition.

10.5 Incompatible materials

Strong oxidizers, bases and acids.

10.6 Hazardous decomposition products

None are expected under normal storage and usage conditions.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Likely Routes of Exposure: Eyes, Skin, Ingestion, Inhalation

Skin corrosion/irritation

Skin contact may cause irritation or pain and redness.
Safety Data Sheet
MetalSolve Low Foaming Metal Cleaner-Degreaser

**Serious eye damage/irritation**
Eye contact may cause irritation or pain, redness and watering.

**Respiratory or skin sensitization**
Inhalation may cause coughing, choking and respiratory tract irritation.

**Germ cell mutagenicity**
No data available.

**Carcinogenicity**
This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**
No data available.

**Summary of evaluation of the CMR properties**
No known significant effects or critical hazards.

**STOT-single exposure**
No data available.

**STOT-repeated exposure**
No data available.

**Aspiration hazard**
Ingestion may cause stomach and throat pain.

**Additional information**
No data available.

**SECTION 12: Ecological information**

**Toxicity**
No specific data available for this mixture.

**Persistence and degradability**
No data available on product

**Bioaccumulative potential**
No data available on product

**Mobility in soil**
No data available.

**Results of PBT and vPvB assessment**
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**Other adverse effects**
No known significant effects or critical hazards.
SECTION 13: Disposal considerations

Disposal of the product
Disposal should be in accordance with applicable Federal, State and local laws and regulations. Local regulations may be more stringent than State or Federal requirements.

Disposal of contaminated packaging
Dispose of as unused product.

Other disposal recommendations
Avoid disposal of this product. Use complete contents according to directions. Do not release contents into a municipal sewer except through normal dilution and usage. Do not release contents onto the ground or into any body of water. Dispose of empty container by offering for recycling if available, or into a landfill. Follow all applicable state and local regulations.

SECTION 14: Transport information

DOT (US)
Non-regulated liquid

Note: Certain package sizes of this product may qualify for exceptions to DOT’s packaging, labeling and other requirements, and thus may have different DOT shipping names. For bulk shipments, see the shipping documents.

SECTION 15: Regulatory information

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

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
The following components are subject to reporting levels established by SARA Title III, Section 313:
Ethylene glycol monobutyl ether CAS: 111-76-2

SARA 311/312 Hazards
Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components
Ethylene glycol monobutyl ether CAS: 111-76-2

Pennsylvania Right To Know Components
Ethylene glycol monobutyl ether CAS: 111-76-2

New Jersey Right To Know Components
Ethylene glycol monobutyl ether CAS: 111-76-2

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: Other information

The information herein is believed to be correct, but is given without warranty or guaranty of any kind, express or implied. The hazards provided in this Safety Data Sheet apply to the product in its concentrated form, and may differ significantly after dilution.

16.1 Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Crown Chemical, Inc. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Crown Chemical, Inc. has been advised of the possibility of such damages.