Section 1 – PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Anti-Spatter Nozzle Gel
PRODUCT IDENTIFICATION: CROWN 69-Dip
SPECIFICATION: N/A
RECOMMENDED USE: Protects against weld spatter build-up on MIG (GMAW) gun nozzles and other welding components.
SUPPLIER: Crown Alloys Company
30105 Stephenson Hwy.
Madison Heights, MI. 48071
TELEPHONE NUMBER: (248) 588-3790
EMERGENCY NUMBER: Call CHEMTREC Day or Night 1-800-424-9300 / +1 703-527-3887
WEBSITE: www.crownalloys.com

Section 2 – HAZARDS IDENTIFICATION

2.1 Classification of the mixture
Not classified

2.1.1 Classification in accordance with GHS-US/OSHA/HCS
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

2.2 Label elements
GHS-US labelling
Hazard Pictograms (GHS-US): None required
Signal word (GHS-US): No signal word
Hazard statements (GHS-US): No known significant effects or critical hazards
Precautionary statements (GHS-US): Not applicable

2.3 Other hazards
No known other hazards

2.4 Unknown acute toxicity (GHS-US)
No data available

Other hazards which do not result in GHS classification:
Since this product is often used in conjunction with welding, please notice the below general welding hazards:
Electrical shock can kill.
Arc rays can injure eyes and burn skin.
Welding arc and sparks can ignite combustibles and flammable materials.
Overexposure to welding fumes and gases can be hazardous.
Read and understand the manufacturer's instructions, Safety Data Sheets and the precautionary labels before using these alloys. Refer to Section 8.

Substance(s) formed under the conditions of use:
Welding fumes may contain the following constituent(s) and/or their complex metallic oxides as well as solid particles or other constituents from the consumables, base metal, or base metal coating not listed below:

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide</td>
<td>124-38-9</td>
<td>Ozone</td>
<td>10028-15-6</td>
<td>Nitrogen Dioxide</td>
<td>10102-44-0</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>630-08-0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 3 – COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances
Not applicable
### Section 4 – FIRST AID MEASURES

#### 4.1 Description of first aid measures

**Ingestion:** Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If the material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Should ingestion occur, do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

**Inhalation:** Inhalation is unlikely at ambient temperatures and is not expected to present an inhalation hazard. Caution should be taken to prevent the aerosolization or misting of this product. Should inhalation occur, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

**Skin Contact:** Should irritation occur, wash affected area with soap and water for 15 minutes. Launder clothing before reuse. If irritation persists, seek medical attention.

**Eye Contact:** Flush eyes with cool, clean water (low pressure) for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye and eyelid. Check for and remove any contact lenses. If irritation persists seek medical attention. Arc rays can injure eyes. If exposed, move victim to a dark room, remove contact lenses and cover eyes with a padded dressing and rest. Obtain medical assistance if symptoms persist.

#### 4.2 Most important symptoms/effects, acute and delayed

**Medical Conditions Aggravated by Exposure:** None known

**Symptoms/injuries after inhalation:** No known significant effects or critical hazards.

**Symptoms/injuries after skin contact:** No known significant effects or critical hazards.

**Symptoms/injuries after eye contact:** No known significant effects or critical hazards.

**Symptoms/injuries after ingestion:** No known significant effects or critical hazards.

#### 4.3 Indication of immediate medical attention and special treatment needed

No additional information available

### Section 5 – FIRE-FIGHTING MEASURES

**General Fire Hazards:** As shipped, this product is nonflammable. However, welding arc and sparks can ignite combustibles and flammable products. Read and understand American National Standard Z49.1, "Safety In Welding, Cutting and Allied Processes" and National Fire Protection Association NFPA 51B, “Standard for Fire Prevention During Welding, Cutting and Other Hot Work” before using this product.

#### 5.1 Extinguishing media

**Suitable extinguishing media:** Small Fire: Use dry chemical powder or CO₂. Large Fire: Use water spray, fog or foam.

**Unsuitable extinguishing media:** Do not use water jet.

#### 5.2 Special hazards arising from the substance

**Fire hazard:** Not flammable at room temperature. May be combustible at high temperatures. Dense smoke may be generated while burning. Carbon monoxide, carbon dioxide and other oxides may be generated as products of combustion.

**Explosion hazard:** None known

#### 5.3 Special protective equipment and precautions for firefighters

**Special firefighting procedures:** Use standard firefighting procedures and consider the hazards of other involved materials.

**Special protective equipment for firefighters:** Firefighters should wear full protective gear.

### Section 6 – ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

Wear the appropriate protective equipment as conditions warrant. Do not touch or walk through spilled material.

#### 6.2 Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Hygiene measures:

General Respiratory Welding Controls:

Respiratory Protection:

Eye/face protection:

Appropriate Engineering Controls:

Keep your head out of fumes. Use enough ventilation and local exhaust to keep fumes and gases from your breathing zone and remove contaminants.


Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Specific end use(s)

For welding consumables and related products

Section 7 – HANDLING AND STORAGE

Precautions for safe handling

Do not eat, drink or smoke when using the product. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Cosmetics should not be applied in areas where exposures exist! Routinely wash work clothing and protective equipment to remove contaminants.


Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Specific end use(s)

For welding consumables and related products

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Exposure controls

Appropriate Engineering Controls:

Use enough ventilation, local exhaust at the arc, or both to keep the fumes and gases from the worker's breathing zone & the general area. Maintain exposures below acceptable exposure levels. Use industrial hygiene air monitoring to ensure that your use of these products does not create exposures that exceed the recommended exposure limits. Always use exhaust ventilation in user operations such as high temperature cutting, grinding, welding and brazing. Train the welder to keep his head out of the fume plume. Confined spaces require adequate ventilation and/or air supplied respirators. Read and understand the manufacturer's instructions and the precautionary label on the product. See American National Standard Z49.1, Safety In Welding, Cutting, and Allied Processes, published by the American Welding Society, 8669 Doral Blvd. Suite 130, Doral, FL 33166 and OSHA Publication 2206 (29CFR1910), US Government Printing Office, Washington, D.C. 20402 for more details on many of the following.

Eye/face protection:

At a minimum, always wear safety glasses with side shields. Additional protection such as goggles, face shields or respirators may be required. Wear helmet or use face shield with filter lens shade number 12 or darker when engaging in any open arc processes. No specific lens shade recommendation for submerged arc processes. Shield others by providing screens & flash goggles.

Skin/Hand Protection:

Wear protective gloves. Chemically resistant gloves (neoprene, butyl or nitrile rubber) are recommended.

Respiratory Protection:

Use of the Crown-Dip as per label instructions does not by itself require the use of respiratory protection, however, Crown 69-Dip is usually used in conjunction with many different open arc processes which requires much more vigilant attention to the resulting fumes.

General Respiratory Welding Controls:

Keep your head out of fumes. Use enough ventilation and local exhaust to keep fumes and gases from your breathing zone and the general area. An approved respirator should be used unless exposure assessments are below applicable exposure limits. Use respirable fume respirator or air supplied respirator when welding in confined space or where local exhaust or ventilation does not keep exposure below TLV's (see Section 8.1 of specific alloy SDS). Use only NIOSH approved respirators in atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998).

Hygiene measures:

Do not eat, drink or smoke when using the product. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Cosmetics should not be applied in areas where exposures exist! Routinely wash work clothing and protective equipment to remove contaminants.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Solid (Waxy Solid)</td>
</tr>
<tr>
<td>Physical state</td>
<td>Dark purple</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Specific gravity (H₂O=1)</td>
<td>0.82 – 0.865 @ 25°C</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting point/Range</td>
<td>50-56°C / 122-132.8°F</td>
</tr>
<tr>
<td>Boiling point/Range</td>
<td>&gt; 300°C / &gt; 572°F</td>
</tr>
<tr>
<td>Flammability limit - upper (%)</td>
<td>Not established</td>
</tr>
<tr>
<td>Flammability limit - lower (%)</td>
<td>Not established</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.84</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in diethyl ether. Insoluble in water</td>
</tr>
<tr>
<td>Volatility</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not established</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>VOC content</td>
<td>0.0%</td>
</tr>
</tbody>
</table>
Section 10 – STABILITY AND REACTIVITY

10.1 Reactivity

No specific test data related to reactivity available for this product.

10.2 Chemical stability

This product is stable under normal conditions.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

Avoid extreme heat, incompatible materials.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Use of the Crown 69-Dip as per label instructions does not by itself result in any hazardous decomposition products, however, Crown 69-Dip is usually used in conjunction with many different open arc processes. Please note the below likely hazardous decomposition products from general welding operations:

Welding fumes and gases can’t be classified simply. The composition and quantity of both are dependent upon the metal being welded and the rods used. Coatings on the metal being welded (such as paint, plating, or galvanizing), the number of welders, the volume of the work area, the quality and the amount of ventilation, the position of the welder's head with respect to the gas plume, the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning and degreasing activities), the process and procedures, as well as the welding consumables. Gaseous reaction products may include carbon monoxide and carbon dioxide. Ozone and nitrogen oxides may be formed by the radiation from an arc, in addition to the shielding gases like argon and helium, whenever they are employed.

Section 11 – TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Ingestion: The effects of swallowing excessive amounts are not known.
Inhalation: Prolonged inhalation of mist could cause respiratory tract irritation.
Skin Contact: Prolonged contact may cause persons with sensitive skin to experience mild irritation.
Eye contact: Contact by vapors and mist is moderately irritating to the eyes. Similar irritation can be experienced when hand soap or shampoos contact the eyes.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure): Discomfort if swallowed

<table>
<thead>
<tr>
<th>Specified substance: PETROLATUM, WHITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 (oral, rat) &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>LD50 (dermal, rabbit) &gt; 2,000 mg/kg</td>
</tr>
</tbody>
</table>

Repeated dose toxicity (product): Not classified
Skin corrosion/irritation (product): Not classified
Serious eye damage/irritation (product): Not classified
Respiratory or skin sensitization (product): May cause an allergic skin reaction
Germ cell mutagenicity (product): Not classified

Carcinogenicity (product):

| NTP: Not listed |
| IARC: Not listed |
| OSHA: Not listed |
| ACGIH: Not listed |

Reproductive toxicity (product): Not classified
Specific target organ toxicity - single exposure (product): Not classified
Specific target organ toxicity - repeated exposure (product): Not classified
Aspiration hazard (product): Not classified
Other Effects: Not classified

Symptoms related to the physical, chemical and toxicological characteristics under the condition of use: Not classified

Additional toxicological information under the conditions of use:

| Acute toxicity: Not classified | Carcinogenicity: Not classified |
Section 12 – ECOLOGICAL INFORMATION

Eco-toxicity: Not determined

Acute hazards to the aquatic environment:

**Fish**

| Specified substance: PETROLATUM, WHITE | LC50 (Fathead minnow (Pimephales promelas), 96 h): >100 mg/l |

**Aquatic Invertebrates**

| Specified substance: PETROLATUM, WHITE | EC50 (Water flea (Daphnia magna), 48 h): >100 mg/l |

Chronic hazards to the aquatic environment:

**Fish** (product): Not classified

**Aquatic Invertebrates** (product): Not classified

Persistence and Degradability

**Biodegradation** (product): Not classified

Bioaccumulative Potential:

| Specified substance: PETROLATUM, WHITE | LogP<sub>ow</sub> – 6 | BCF - Not classified | Potential - High |

Mobility in Soil: Is not likely mobile in the environment due to its low water solubility.

Other Adverse Effects: None

Section 13 – DISPOSAL CONSIDERATIONS

Product Disposal Method:

This product, as manufactured in its present state, is not considered to be a hazardous waste according to 40CFR 261.4(b)(4). Under RCRA, it is the responsibility of the user of the final product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This product should be disposed of in accordance with all applicable federal, state and local regulations.

Do not discard into any sewers, on the ground or into any bodies of water.

Contaminated Container or Packaging: Dispose of spent containers cans and packaging in accordance with all federal, state, regional and/or local regulations. Empty containers or liners may retain some product residues.

Section 14 – TRANSPORT INFORMATION

In accordance with DOT / ADR / RID / ADNR / IMDG / ICAO / IATA

**14.1 UN number**
Not a dangerous good in sense of transport regulations

**14.2 UN proper shipping name**
Not applicable

**14.3 Additional information**

| IMDG-IMO: | Not regulated |
| TDG Classification: | Not regulated |
| IATA: | Not regulated |

**DOT HM-181 Shipping Information:**

| DOT Shipping Name: | None |
| Hazard Class or Division: | None |
| UN Number: | None |
| Packing Group: | None |
| Label(s) Required: | None |

Section 15 – REGULATORY INFORMATION

**15.1 US Federal regulations**

| TSCA 8(a) CDR Exempt/Partial exemption: | This material is listed or exempted. |
| Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs): | Not listed |
| Clean Air Act Section 602 Class I Substances: | Not listed |
| Clean Air Act Section 602 Class II Substances: | Not listed |
| DEA List I Chemicals (Precursor Chemicals): | Not listed |
| DEA List II Chemicals (Essential Chemicals): | Not listed |
SAFETY DATA SHEET

CROWN ALLOYS COMPANY

NATIONAL FIRE PROTECTION ASSOCIATION:
Health Hazard: 0 (material that on exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials); 1 (materials that on exposure under fire conditions could cause irritation or minor residual injury); 2 (materials that on intense or continued exposure under fire conditions could cause temporary incapacitation or possible residual injury); 3 (materials that can on short exposure cause serious temporary or residual injury); 4 (materials that under very short exposure causes death or major residual injury).
Flammability Hazard: Refer to definitions for "HMIS RATING (Hazardous Materials Information System)"
Reactivity Hazard: Refer to definitions for "HMIS RATING (Hazardous Materials Information System)"

DEFINITIONS OF TERMS
ACGIH - American Conference of Governmental Industrial Hygienists
CAS No. - Chemical Abstracts Service Number
EPA - Environmental Protection Agency
GHS - Globally Harmonized System
IARC - International Agency for Research on Cancer
LC50 - Lethal Concentration (50 percent kill)
LCLO - Lowest published lethal concentration
LD50 - Lethal dose (50 percent kill)
LDLO - Lowest published lethal dose
NIOSH - National Institute of Occupational Safety and Health
NTP - National Toxicology Program
OSHA - U.S. Occupational Safety and Health Administration
PEL - Permissible Exposure Limit
SARA - Superfund Amendments and Reauthorization Act
STEL - Short Term Exposure Limit
TCLo - the lowest concentration to cause a symptom
TDLo - the lowest dose to cause a symptom
TLV - Threshold Limit Value
TSCA - Toxic Substances Control Act
TWA - Time Weighted Average

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES: Crown Alloys Company urges each end user and recipient of this SDS to study it carefully. If necessary, consult an industrial hygienist or other expert to understand this information and safeguard the environment and protect workers from the potential hazards associated with the handling or use of this product. The information in this document is believed to be correct as of the date issued. However, this information is provided without any representation or warranty, expressed or implied, regarding accuracy or correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons we do not assume responsibility and expressly disclaim liability of loss, damage, or expense arising from it or any way connected with the handling, storage, use, or disposal of this product. Data may be changed from time to time. Be sure to consult the latest edition of the SDS. Compliance with all applicable Federal, State, Provincial and local laws and regulations remain the responsibility of the user.