# **SAFETY DATA SHEET**



#### Section 1: IDENTIFICATION

#### 1.1 PRODUCT IDENTIFIER

Product Name: SKD-S2 Aerosol

Product Code: Not available.

#### **1.2 RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE**

Use:

Non-Destructive Testing.

# **1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET**

Name/Address: Magnaflux 155 Harlem Avenue, Glenview, Illinois 60025

 Telephone Number:
 847-657-5300

# **1.4 EMERGENCY TELEPHONE NUMBER**

Emergency Telephone Number: CHEMTREC 800-424-9300

Date of Preparation:

November 25, 2013

Version #: 1.2

Section 2: HAZARD(S) IDENTIFICATION

# 2.1 CLASSIFICATION OF THE CHEMICAL ACCORDING TO OSHA HAZCOM 2012

Hazard class

Flammable Aerosol 1 Gases Under Pressure - Compressed Gas Eye irritation 2A Specific target organ toxicity - Single exposure 3 Specific target organ toxicity - Repeated exposure 1

# 2.2 LABEL ELEMENTS ACCORDING TO OSHA HAZCOM 2012

Hazard Pictogram:



Signal Word: Hazard Statement:

Prevention:

Danger

Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes serious eye irritation. May cause drowsiness or dizziness. Causes damage to lungs through prolonged or repeated exposure.

Keep away from heat/sparks/open flames/hot surfaces. -No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Wash hands thoroughly after handling. Wear eye protection/face protection. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.



| Response: | If in eyes: Rinse cautiously with water for several minutes. Remove<br>contact lenses, if present and easy to do. Continue rinsing. If eye<br>irritation persists: Get medical advice/attention. If inhaled: Remove<br>person to fresh air and keep comfortable for breathing. Call a<br>poison center/doctor if you feel unwell. |
|-----------|---|
| Storage:  | Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Store locked up.   |
| Disposal: | Dispose of contents and container in accordance with all local, regional, national and international regulations.   |

# 2.3 ADDITIONAL INFORMATION

Hazards not otherwise classified: Not applicable.

2 % of the mixture consists of ingredient(s) of unknown acute toxicity.

This product is a hazardous chemical as defined by NOM-018-STPS-2000.

# Mexico Classification:



Blue = HealthRed = FlammabilityYellow = ReactivityWhite = SpecialHazard Rating:0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

# WHMIS Classification(s):

Class A - Compressed Gas Class B5 - Flammable Aerosol Class D2A - Chronic Toxic Effects Class D2B - Eye Irritant

WHMIS Hazard Symbols:



Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

# **3.1 MIXTURES**

| Ingredient                             | UN #           | H / F/ R / *   | CAS No     | Wt. %   |
|--|----------------|----------------|------------|---------|
| Isopropanol                            | UN1219         | 1/3/0          | 67-63-0    | 30 - 60 |
| Petroleum gases, liquefied, sweetened  | UN1075         | Not available. | 68476-86-8 | 15 - 40 |
| Acetone                                | UN1090         | 1/3/0          | 67-64-1    | 10 - 30 |
| Ceramic materials and wares, chemicals | Not available. | Not available. | 66402-68-4 | 3 - 7   |
| Talc                                   | Not available. | Not available. | 14807-96-6 | 1 - 5   |

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

\* Per NOM-018-STPS-2000

| Section 4: FIRST- AID MEASURES                           |  |  |  |  |
|--|--|--|--|--|
| 4.1 DESCRIPTION OF THE FI                                | RST AID MEASURE  |  |  |  |
| Eye:   | In case of contact, immediately flush eyes with plenty of water for at least 15 minutes, including under lids. If easy to do, remove contact lenses, if worn. Get medical attention immediately. |  |  |  |
| Skin:  | In case of contact, immediately flush skin with plenty of water. Call a physician if irritation develops and persists.   |  |  |  |
| Inhalation:  | If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.  |  |  |  |
| Ingestion:   | If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.               |  |  |  |
| 4.2 MOST IMPORTANT SYMP                                  | PTOMS AND EFFECTS, BOTH ACUTE AND DELAYED  |  |  |  |
| Eye:   | Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.                                |  |  |  |
| Skin:  | May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.   |  |  |  |
| Inhalation:  | May cause respiratory tract irritation. May cause drowsiness or dizziness.   |  |  |  |
| Ingestion:   | May be harmful if swallowed. May cause stomach distress, nausea or vomiting.   |  |  |  |
| 4.3 INDICATION OF ANY IMM                                | EDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED   |  |  |  |
| Note to Physicians: Symptoms may not appear immediately. |  |  |  |  |
| Specific Treatments:                                     | In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).   |  |  |  |
|  | Section 5: FIRE-FIGHTING MEASURES  |  |  |  |
| 5.1 FLAMMABILITY   |  |  |  |  |
| Flammability:  | Flammable by WHMIS/OSHA/NOM-018-STPS-2000 criteria.  |  |  |  |
| 5.2 EXTINGUISHING MEDIA                                  |  |  |  |  |
| Suitable Extinguishing Med                               | ia: Water, foam, carbon dioxide.   |  |  |  |
| Unsuitable Extinguishing M                               | edia: Not available.   |  |  |  |
| 5.3 SPECIAL HAZARDS ARIS                                 | SING FROM THE CHEMICAL   |  |  |  |
| Products of Combustion:                                  | May include, and are not limited to: oxides of carbon.   |  |  |  |
| Explosion Data:  |  |  |  |  |
| Sensitivity to Mecha                                     | nical Impact: Not available.   |  |  |  |



#### Sensitivity to Static Discharge: Not available.

#### 5.4 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS

Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

Section 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition.

#### 6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING - UP

| Methods for Containment: | Contain and/or absorb spill with inert material (e.g. sand, vermiculite),<br>then place in a suitable container. Do not flush to sewer or allow to enter<br>waterways. Use appropriate Personal Protective Equipment (PPE). |
|--------------------------|---|
| Methods for Cleaning-Up: | Scoop up material and place in a disposal container. Provide ventilation.   |
|                          | Section 7: HANDLING AND STORAGE   |

#### 7.1 PRECAUTIONS FOR SAFE HANDLING

| Handling:                 | Keep away from sources of ignition No smoking. Do not spray on<br>an open flame or other ignition source. Pressurized container: Do<br>not pierce or burn, even after use. Container may explode if heated.<br>Avoid contact with skin and eyes. Do not breathe dust/fume/gas/<br>mist/vapors/spray. Do not swallow. Use only outdoors or in a well-<br>ventilated area. When using do not eat, drink or smoke. Use non-<br>sparking tools. (See section 8) |
|---------------------------|---|
| General Hygiene Advice:   | Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.   |
| 7.2 CONDITIONS FOR SAFE S | TORAGE, INCLUDING ANY INCOMPATIBILITIES   |
| Storage:                  | Keep out of the reach of children. Store locked up. Protect from sublight. Do not store at temperatures above $50 \degree C / 122 \degree E$ . Store in   |

sunlight. Do not store at temperatures above 50 °C / 122 °F. Store in a well-ventilated place. (See section 10)

#### Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 CONTROL PARAMETERS

#### Exposure Guidelines

| Occupational Exposure Limits           |  |                            |  |
|--|--|----------------------------|--|
| Ingredient                             | OSHA-PEL                                 | ACGIH-TLV                  |  |
| Isopropanol                            | 400 ppm                                  | 200 ppm                    |  |
| Petroleum gases, liquefied, sweetened  | 1000 ppm                                 | 1000 ppm                   |  |
| Acetone                                | 1000 ppm TWA; 2400 mg/m <sup>3</sup> TWA | 500 ppm                    |  |
| Ceramic materials and wares, chemicals | 5 mg/m <sup>3</sup>                      | Not available.             |  |
| Talc                                   | 20 mppcf                                 | 2 mg/m <sup>3</sup> (resp) |  |



# 8.2 EXPOSURE CONTROLS

Engineering Controls:

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

#### 8.3 INDIVIDUAL PROTECTIVE MEASURES

**Personal Protective Equipment:** 

Eye/Face Protection: Safety glasses or goggles are recommended when using product.

**Skin Protection:** 

Hand Protection: Chemical-resistant gloves.

Body Protection: Wear suitable protective clothing.

**Respiratory Protection:** In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

#### General Health and Safety Measures:

Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

| Appearance:                              | White liquid.           |
|--|-------------------------|
| Color:                                   | White.                  |
| Odor:                                    | Alcohol.                |
| Odor Threshold:                          | Not available.          |
| Physical State:                          | Gas/Pressurized Liquid. |
| pH:                                      | Neutral.                |
| Point/Freezing Point:                    | Not available.          |
| Initial Boiling Point and Boiling Range: | ~ 55 °C (~ 132 °F)      |
| Flash Point:                             | Not applicable.         |
| Evaporation Rate:                        | 0.4 (Ether = 1)         |
| Flammability:                            | Flammable.              |
| Lower Flammability/Explosive Limit:      | 2 %                     |
| Upper Flammability/Explosive Limit:      | 15 %                    |
| Vapor Pressure:                          | 65 psi @ 24 °C (75 °F)  |
| Vapor Density:                           | 3                       |
| Relative Density/Specific Gravity:       | 0.87                    |
| Solubility:                              | Partial.                |
| Partition coefficient: n-octanol/water:  | Not available.          |
| Auto-ignition Temperature:               | Not available.          |



| Decomposition Temperature: | Not available. |
|----------------------------|----------------|
| Viscosity:                 | Not available. |
| Oxidizing Properties:      | Not available. |
| Explosive Properties:      | Not available. |

Section 10: STABILITY AND REACTIVITY

#### **10.1 REACTIVITY**

No dangerous reaction known under conditions of normal use.

#### **10.2 CHEMICAL STABILITY**

Stable under normal storage conditions. Contents under pressure. Container may explode if heated. Do not pierce or burn, even after use.

#### **10.3 POSSIBILITY OF HAZARDOUS REACTIONS**

No dangerous reaction known under conditions of normal use.

#### **10.4 CONDITIONS TO AVOID**

Heat. Incompatible materials. Sources of ignition.

#### **10.5 INCOMPATIBLE MATERIALS**

Strong oxidizing agents.

# **10.6 HAZARDOUS DECOMPOSITION PRODUCTS**

May include, and are not limited to: oxides of carbon.

Section 11: TOXICOLOGICAL INFORMATION

#### **11.1 INFORMATION ON TOXICOLOGICAL EFFECTS**

Likely Routes of Exposure:

Skin contact, eye contact, inhalation, and ingestion.

#### Symptoms related to physical/chemical/toxicological characteristics:

- **Eye:** Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
- **Skin:** May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
- **Ingestion:** May be harmful if swallowed. May cause stomach distress, nausea or vomiting.
- Inhalation: May cause respiratory tract irritation. May cause drowsiness or dizziness.

#### Acute Toxicity:

| Ingredient                               | IDLH           | LC50  | LD50  |
|--|----------------|---|---|
|  |                | Inhalation 72.6                               | Oral 4396 mg/kg, rat<br>Dermal 12800 mg/kg, rat |
| Isopropanol                              | 2,000 ppm      | mg/L 4h, rat                                  | Dermal 12870 mg/kg, rabbit                      |
| Petroleum gases,<br>liquefied, sweetened | Not available. | Inhalation 658<br>mg/L 4h, rat                | Not available.                                  |
| Acetone                                  | 2,500 ppm      | Inhalation 50100<br>mg/m <sup>3</sup> 8h, rat | Oral 5800 mg/kg, rat                            |



| Ceramic materials                      |              |                |   |                 | Oral > 2000 mg/kg, rat      |
|--|--------------|----------------|---|-----------------|-----------------------------|
| and wares, chemicals                   | Not ava      | ailable.       | N   | ot available.   | Dermal > 2500 mg/kg, rabbit |
| Talc                                   | 1,000        | mg/m³          | N   | ot available.   | Not available.              |
|  | Calculated o | verall Chemica | al Aci  | ute Toxicity Va | lues                        |
| LC50 (inhalat                          |              |                | 50 (o   |                 | LD50 (dermal)               |
| > 5 mg/L 4h,                           | rat          | > 2000         | ) mg/   | /kg, rat        | > 2000 mg/kg, rabbit        |
| Ingredient                             |              |                | Chemical Listed as Carcinogen or<br>Potential Carcinogen<br>(NTP, IARC, OSHA, ACGIH, CP65)* |                 |                             |
| Isopropanol                            |              |                |   | G-A4, I-3       |                             |
| Petroleum gases, liquefied, sweetened  |              |                | Not listed.   |                 |                             |
| Acetone                                |              |                | G-A4  |                 |                             |
| Ceramic materials and wares, chemicals |              |                | Not listed.   |                 |                             |
| Talc                                   |              |                | G-A4, I-3   |                 |                             |

\* See Section 15 for more information.

# 11.2 DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT- AND LONG-TERM EXPOSURE

| Skin Corrosion/Irritation:                | Based on available data, the classification criteria are not met.    |
|---|--|
| Serious Eye Damage/Irritation:            | Causes serious eye irritation.                                       |
| <b>Respiratory Sensitization:</b>         | Based on available data, the classification criteria are not met.    |
| Skin Sensitization:                       | Based on available data, the classification criteria are not met.    |
| STOT-Single Exposure:                     | May cause drowsiness or dizziness.                                   |
| Chronic Health Effects:                   |  |
| Carcinogenicity:                          | Based on available data, the classification criteria are not met.    |
| Germ Cell Mutagenicity:                   | Based on available data, the classification criteria are not met.    |
| Reproductive Toxicity:                    |  |
| Developmental:                            | Based on available data, the classification criteria are not met.    |
| Teratogenicit                             | y: Based on available data, the classification criteria are not met. |
| Embryotoxicit                             | y: Based on available data, the classification criteria are not met. |
| Fertility:                                | Based on available data, the classification criteria are not met.    |
| STOT-Repeated Exposure:                   | Causes damage to lungs through prolonged or repeated exposure.       |
| Aspiration Hazard:                        | Based on available data, the classification criteria are not met.    |
| Toxicologically Synergistic<br>Materials: | Not available.   |
| Other Information:                        | Not available.   |
|   |  |



# **SAFETY DATA SHEET**

#### Section 12: ECOLOGICAL INFORMATION

#### **12.1 ECOTOXICITY**

Acute/Chronic Toxicity: May cause long-term adverse effects in the aquatic environment.

#### 12.2 PERSISTENCE AND DEGRADABILITY

Not available.

#### **12.3 BIOACCUMULATIVE POTENTIAL**

Bioaccumulation:

Not available.

# **12.4 MOBILITY IN SOIL**

Not available.

# **12.5 OTHER ADVERSE EFFECTS**

Not available.

Section 13: DISPOSAL CONSIDERATIONS

# **13.1 WASTE TREATMENT METHODS**

**Disposal Method:** 

This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

Other disposal recommendations:

Not available.

#### Section 14: TRANSPORT INFORMATION

| DOT Ground | Consumables, Limited Quantity             |
|------------|---|
| ΙΑΤΑ       | UN 1950, Aerosols, Flammable, 2.1         |
| IMDG       | UN 1950, Aerosols, 2.1 (Limited Quantity) |
| TDG        | UN 1950, Aerosols, Flammable, 2.1         |
| NOM-004-   | UN 1950, Aerosols, Flammable, 2.1         |
| SCT2-1994  |   |

#### Section 15: REGULATORY INFORMATION

# 15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATIONS SPECIFIC FOR THE CHEMICAL

**Canada:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**US:** MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012



# Mexico: MSDS prepared pursuant to NOM-018-STPS-2000.

| SARA Title III              |                                 |                              |                     |             |
|-----------------------------|---------------------------------|------------------------------|---------------------|-------------|
| Ingredient                  | Section 302 (EHS)<br>TPQ (lbs.) | Section 304<br>EHS RQ (Ibs.) | CERCLA<br>RQ (lbs.) | Section 313 |
| Isopropanol                 | Not listed.                     | Not listed.                  | Not listed.         | 313         |
| Petroleum gases, liquefied, |                                 |                              |                     |             |
| sweetened                   | Not listed.                     | Not listed.                  | Not listed.         | Not listed. |
| Acetone                     | Not listed.                     | Not listed.                  | 5,000               | Not listed. |
| Ceramic materials and       |                                 |                              |                     |             |
| wares, chemicals            | Not listed.                     | Not listed.                  | Not listed.         | Not listed. |
| Talc                        | Not listed.                     | Not listed.                  | Not listed.         | Not listed. |

#### **State Regulations:**

# California Proposition 65:

This product contains a chemical known to the State of California to cause cancer.

#### **Global Inventories:**

| Ingredient                             | Canada<br>DSL/NDSL | USA<br>TSCA |
|--|--------------------|-------------|
| Isopropanol                            | DSL                | Yes.        |
| Petroleum gases, liquefied, sweetened  | DSL                | Yes.        |
| Acetone                                | DSL                | Yes.        |
| Ceramic materials and wares, chemicals | DSL                | Yes.        |
| Talc                                   | DSL                | Yes.        |

| NFPA-National Fire Protection Association:      |   |  |
|---|---|--|
| Health:   | 2 |  |
| Fire:   | 4 |  |
| Reactivity:                                     | 0 |  |
| HMIS-Hazardous Materials Identification System: |   |  |

| Health:          | 2* |
|------------------|----|
| Fire:            | 4  |
| Physical Hazard: | 0  |

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

# SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

#### CP65 California Proposition 65

OSHA (O) Occupational Safety and Health Administration.

#### ACGIH (G) American Conference of Governmental Industrial Hygienists.

- A1 Confirmed human carcinogen.
- A2 Suspected human carcinogen.
- A3 Animal carcinogen.
- A4 Not classifiable as a human carcinogen.
- A5 Not suspected as a human carcinogen.

# IARC (I) International Agency for Research on Cancer.

1 - The agent (mixture) is carcinogenic to humans.

2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.

2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.

- 3 The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.



#### NTP (N) National Toxicology Program.

- 1 Known to be carcinogens.
- 2 Reasonably anticipated to be carcinogens.

#### Section 16: OTHER INFORMATION

| Date of Preparation: | November 25, 2013 |
|----------------------|-------------------|
| Expiry Date:         | November 25, 2016 |
| Version:             | 1.2               |
| Revision Date:       | November 11, 2015 |
|                      |                   |

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|---------------|---|--|
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| Prepared for: | Magnaflux                                       |  |

# **End of Safety Data Sheet**