



# Safety Data Sheet (SDS)

According to Regulation (EC) No 1907/2006 (REACH)

## Section 1: Identification of the Substance/Mixture and the Company/Undertaking

### 1.1. Product Identifier

Product Form: Powder, -100 mesh, 99.9+% pure

Recommended Uses: Alloys for brazing and other metallurgical processes, plasma spraying process

Product Name: Aluminum-Silicon Alloy

Synonyms: Al(12%)Si

### 1.2. Product Distributor /Manufacturer:

**Materials Science International, Inc.**

1660 Georgesville Road

Columbus, OH 43228-3620, USA

Phn# 1-614-870-0400

Fax# 1-614-878-6000

### 1.3. Chemtrec: (800)424-9300 or Poison Center: (800)562-8236

## Section 2: Hazards Identification

### 2.1. Classification of the Substance or Mixture

Note: the following GHS classifications are applicable only to powdered forms of the product. No hazard classifications are applicable to the product in other forms (e.g., wire, strip, grain).

Flammable Solid: Hazard Category 1

Substances Which, in Contact with Water,

Emit Flammable Gases: Hazard Category 2

Label Symbol(s): Flame

Label Signal Word(s): Danger

Label Hazard Statement(s)

### 2.2. Label Elements

Flammable solid.

In contact with water releases flammable gases.



### 2.3. Other Hazards

This product is present in a massive form as an alloy. It does not present the same hazards when the individual components are in their powdered forms. The materials present in this product in their powdered forms present aquatic toxicity to the environment, pyrophoricity, flammability, self-heating capabilities, carcinogenicity, water reactivity, and

acute toxicity. When processed or where dust is generated a combustible dust hazard may be present. Avoid generating dust, generating sparks, ignition sources, and take all precautions.

Inhalation of dusts and fumes can cause metal fume fever. Symptoms can include a metallic or sweet taste in the mouth, sweating, shivering, headache, throat irritation, fever, chills, thirstiness, muscle aches, nausea, vomiting, weakness, fatigue, and shortness of breath.

Under normal use and handling of the solid form of this material there are few health hazards. Cutting, welding, melting, grinding etc. of these materials will produce dust, fume or particulate containing the component elements of these materials. Exposure to the dust, fume or particulate of these materials may present significant health hazards. Exposure to dust or fume may cause irritation of the eyes, skin and respiratory tract. Fine particulates dispersed in air may present an explosion hazard.

## 2.4. Unknown Acute Toxicity

(GHS-US) No data available

### *Precautionary Statements*

Prevention: Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray

Response IF exposed or concerned: Get medical advice/attention

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing IF

SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth thoroughly.

Precautionary Statements – Storage Store locked up.

### *Precautionary Statements – Disposal*

Dispose of contents/container to an approved waste disposal plant.

*Other information* - Very toxic to aquatic life with long lasting effects.

## Section 3: Composition / Information on Ingredient

Ingredient	CAS Number	Wt%	Impurities
Aluminum	7429-90-5	85-98	None known
Silicon	7440-21-3	2-15	None known

## Section 4: First Aid Measures

### 4.1. Description of First Aid Measures

**General:**

If exposed or concerned: Get medical advice/attention. Never give anything by mouth to an unconscious person.

**Eye:**

Flush affected areas with water for at least fifteen minutes. Seek medical assistance if necessary.

**Skin:**

Remove contaminated clothing. Wash affected area with large quantities of water for at least five minutes. Seek medical attention if necessary. Launder or dry-clean clothing before reuse.

**Ingestion:**

If subject is conscious, induce vomiting. If unconscious or convulsive, seek immediate medical assistance. Do not give anything by mouth to an unconscious or convulsive person.

**Inhalation:**

If signs and symptoms of toxicity are observed, remove subject from area, administer oxygen, and seek medical attention. Keep the subject warm and at rest. Perform artificial respiration if breathing has stopped.

**Note to Physician or Poison Control Center**

None of the components are acutely toxic by ingestion, nor are they absorbed through the skin. Extensive or prolonged skin contact may cause dermatitis.

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

**General:** Welding, cutting, or processing this material may release dust or fumes that are hazardous.

**Inhalation:** Inhalation of dusts and fumes can cause metal fume fever. Symptoms can include a metallic or sweet taste in the mouth, sweating, shivering, headache, throat irritation, fever, chills, thirstiness, muscle aches, nausea, vomiting, weakness, fatigue, and shortness of breath.

**Skin Contact:** May cause an allergic skin reaction. Dust from physical alteration of this product causes skin irritation. Causes severe skin burns. Contact with fumes or metal powder will irritate skin. Contact with hot, molten metal will cause thermal burns. Dust may cause irritation in skin folds or by contact in combination with tight clothing. Mechanical damage via flying particles and chipped slag is possible.

**Eye Contact:** Dust may cause mechanical irritation to eyes, nose, throat, and lungs.

**Ingestion:** Ingestion is likely to be harmful or have adverse effects.

**Chronic Symptoms:** In massive form, no hazard exists. If physically altered to present slivers, ribbons, dusts or fumes from molten material:

**Aluminum:** Inhalation of finely divided aluminum powder may cause pulmonary fibrosis.

**Silicon :** Can cause chronic bronchitis and narrowing of the airways.

## *Indication of any immediate medical attention and special treatment needed*

Note to physicians: Treat symptomatically.

## **Section 5: Fire / Fighting Measures**

### **Fire and Explosion Hazards**

This product in powdered form may ignite if exposed to flame or by reaction with incompatible materials (see Section #10). If present in a fire or explosion, it may emit fumes of the constituent metals or their oxides. Powders containing aluminum can also form explosive mixtures in a dust cloud in air. Avoid static discharges where powder may be present.

### **Extinguishing Media**

Use dry sand, dry clay, dry limestone, or Class D fire extinguishers. Do not use carbon dioxide, halogenated agents, or water.

### **Fire Fighting Instructions**

If fighting a fire in which this product is present, wear a self-contained breathing apparatus with full face piece operated in pressure-demand or other positive pressure mode. Exercise caution when fighting any chemical fire.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Oxides of tin. Oxides of nickel. Oxides of copper. Oxides of silicone and carbon. Oxides of lead. Oxides of aluminum. Oxides of silver.

### **Reference to Other Sections**

Refer to section 9 for flammability properties.

### **Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Lead is not considered to be a fire hazard.

Powder/dust is flammable when heated or exposed to flame.

## **Section 6: Accidental Release Measures**

### **6.1. Personal Precautions, Protective Equipment and Emergency Procedures**

General Measures: Do not handle until all safety precautions have been read and understood. Do not breathe vapors from molten product. Avoid all eye and skin contact and do not breathe dust, fumes, and vapors.

**6.1.1. For Non-Emergency Personnel Protective Equipment:** Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

#### **6.1.2. For Emergency Personnel Protective Equipment:**

Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

#### **6.2. Environmental Precautions**

Prevent entry to sewers and public waters.

#### **6.3. Methods and Material for Containment and Cleaning Up**

If a powdered form of product is spilled, clean up spillage with a brush or sponge, using non-sparking equipment. Only vacuum cleaners approved for use with combustible metal dusts should be used. If cleaning by vacuum, piping, hoses, and attachments should be electrically conductive and grounded.

**For Containment:** Contain and collect as any solid.

**Methods for Cleaning Up:** Clear up spills immediately and dispose of waste safely.

**For particulates and dust:** Avoid actions that cause dust to become airborne during clean-up such as dry sweeping or using compressed air. Use PPE described in Section 8. Vacuum must be fitted with HEPA filter to prevent release of particulates during clean-up.

**6.4. Reference to Other Sections** - See heading 8, Exposure Controls and Personal Protection. Concerning disposal elimination after cleaning, see item 13.

## **Section 7: Handling and Storage**

### **7.1. Precautions for Safe Handling**

#### **Additional Hazards When Processed:**

May generate flammable/explosive dusts or turnings when brushed, machined or ground. Use care during processing to minimize generation of dust. Where excessive dust may result, use approved respiratory protection equipment. Heating of product can release toxic or irritating fumes; ensure proper ventilation is employed, proper precautions are enforced, and applicable regulations are followed. Inhalation of fumes may cause metal fume fever.

Advice on safe handling: Use personal protection recommended in Section 8. Avoid generation of dust. Be familiar with the requirements set forth in the OSHA Lead Standard, 29 CFR 1910.1025.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

### **7.2. Conditions for Safe Storage, Including Any Incompatibilities**

**Storage Conditions:** Store in a dry, cool and well-ventilated place.

**Incompatible Materials:** Strong acids, strong bases, strong oxidizers. Alkalis. Metal oxides. Water, humidity. Corrosive substances in contact with metals may produce flammable hydrogen gas.

### Handling Precautions

Avoid handling product where there is the potential for static discharge.

### Work and Hygiene Practices

To prevent ingestion following use of the product, wash hands and face before eating, drinking, applying cosmetics, or using tobacco. Remove contaminated clothing or protective equipment before entering eating/drinking areas.

### Storage Precautions

Store away from incompatible materials (see Section #10).

### 7.3. Specific End Use(s) - No use is specified.

## Section 8: Exposure Controls / Personal Protection

### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Aluminum (7429-90-5)		
Mexico	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (dust)
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (respirable fraction)
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)
Alberta	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (dust)
British Columbia	OEL TWA (mg/m <sup>3</sup> )	1.0 mg/m <sup>3</sup> (respirable)
Manitoba	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (respirable fraction)
New Brunswick	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (metal dust)
Newfoundland & Labrador	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (respirable fraction)
Nova Scotia	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (respirable fraction)
Nunavut	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup>
Nunavut	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Northwest Territories	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup>
Northwest Territories	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Ontario	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (respirable)
Prince Edward Island	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (respirable fraction)
Québec	VEMP (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Saskatchewan	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup> (dust)
Saskatchewan	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (dust)
British Columbia	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust)
New Brunswick	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Nunavut	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (respirable mass)
Northwest Territories	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (respirable mass)
Ontario	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust)
Québec	VEMP (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (containing no Asbestos)

		and <1% Crystalline silica-total dust)
Saskatchewan	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup>
Saskatchewan	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Yukon	OEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup>
Yukon	OEL TWA (mg/m <sup>3</sup> )	30 mppcf

## Handling Precautions

Avoid handling product where there is the potential for static discharge.

## Work and Hygiene Practices

To prevent ingestion following use of the product, wash hands and face before eating, drinking, applying cosmetics, or using tobacco. Remove contaminated clothing or protective equipment before entering eating/drinking areas.

## Storage Precautions

Store away from incompatible materials (see Section #10).

## 8.2. Exposure Controls

**Appropriate Engineering Controls:** Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Power equipment should be equipped with proper dust collection devices. Ensure all national/local regulations are observed.

**Personal Protective Equipment:** Protective clothing. Gloves. Safety glasses. Dust formation: dust mask. Insufficient ventilation: wear respiratory protection.



**Materials for Protective Clothing:** Chemically resistant materials and fabrics. With molten material wear thermally protective clothing.

**Hand Protection:** Wear chemically resistant protective gloves. If material is hot, wear thermally resistant protective gloves.

**Eye Protection:** Chemical goggles or safety glasses.

**Skin and Body Protection:** Wear suitable protective clothing. Wash contaminated clothing before reuse.

**Respiratory Protection:** Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

**General Hygiene Considerations:** Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wear disposable gloves and eye/face protection. Wash face, hands and any exposed skin thoroughly after handling.

## Section 9: Physical and Chemical Properties

<b>Physical State</b>	:	Solid
<b>Appearance</b>	:	Metallic powder
<b>Odor</b>	:	Odorless
<b>Odor Threshold</b>	:	Not available
<b>pH</b>	:	Not available
<b>Evaporation Rate</b>	:	Not available
<b>Melting Point</b>	:	440 - 1215 °F (226.7 - 657.2 °C)
<b>Freezing Point</b>	:	Not available
<b>Boiling Point</b>	:	Not available
<b>Flash Point</b>	:	Not applicable
<b>Auto-ignition Temperature</b>	:	Not available
<b>Decomposition Temperature</b>	:	Not available
<b>Flammability (solid, gas)</b>	:	Not available
<b>Lower Flammable Limit</b>	:	Not available
<b>Relative Density</b>	:	Not available
<b>Specific Gravity</b>	:	2.5 - 2.9
<b>Solubility</b>	:	Insoluble in water
<b>Partition Coefficient: N-octanol/water</b>	:	Not available
<b>Viscosity</b>	:	Not available
<b>Explosion Data – Sensitivity to Mechanical Impact</b>	:	Not expected to present an explosion hazard due to mechanical impact.
<b>Explosion Data – Sensitivity to Static Discharge</b>	:	Not expected to present an explosion hazard due to static discharge.

## Section 10: Physical and Chemical Properties

Reactivity: none reasonably foreseeable

Stability: stable

Hazardous Polymerization: will not occur

Risk of Dangerous Reactions: see "Conditions to Avoid"

### Conditions to Avoid

Contact with incompatible materials, static, moisture, and flames.

### Incompatible Materials

Ammonium nitrate; bromates; chlorates; iodates; antimony trichloride; arsenic trichloride; halogens; peroxides; carbon disulfide; carbon tetrachloride; halogenated hydrocarbons; chromic anhydride; copper oxide; diborane; sodium; performic acid; phosgene; silver chloride; sulfates; alkali carbonates; cesium and rubidium carbides; cobaltic fluoride; iodine pentafluoride; silver fluoride; calcium; potassium.

### Hazardous Decomposition Products

Heating to elevated temperatures may liberate metal/metal oxide fumes.



## Section 11: Toxicological Information

### Ingredients - Toxicological Data

#### Aluminum

LD50: No data available

LC50: No data available

#### Silicon

LD50: 3,160 mg/kg (oral/rat)

LC50: No data available

### Primary Routes(s) of Entry

Ingestion; inhalation.

### Eye Hazards

Eye contact with this product may cause irritation.

### Skin Hazards

Skin contact with this product may cause irritation.

#### Ingestion Hazards

Ingestion of this product may cause nausea, vomiting, and gastrointestinal irritation.

### Inhalation Hazards

Inhalation of toxicologically-significant quantities of the components is unlikely when the product is used in accordance with instructions and specified protective measures (see Section #8).

### Symptoms Related to Overexposure

Pre-existing pulmonary diseases (e.g., bronchitis, asthma) may be aggravated by inhalation overexposure, particularly as fume.

### Delayed Effects from Long Term Overexposure

Chronic overexposure by inhalation and/or ingestion may aggravate pre-existing diseases of the respiratory system.

### Carcinogenicity

The product contains no chemicals classified as potential or demonstrated carcinogens by IARC, NTP, or OSHA.

### Germ Cell Mutagenicity

The product contains no chemicals determined to be germ cell mutagens.

### Reproductive Effects

The product contains no chemicals determined to be damaging to fertility or the unborn child.

### Acute Toxicity Estimates

LD50 (oral): >3,160 mg/kg

LD50 (dermal): no data available

LC50: no data available

Interactive Effects of Components: no data available

## Section 12: Ecological Information

### 12.1. Toxicity

Available ecological data for the components is as follows:

#### Aluminum

Acute Toxicity to Fish: NOEC >100 mg/l. for 4 d. (freshwater fish)

Acute Toxicity to Invertebrates: NOEC >100 mg/l. for 48 h. (Daphnia)

Acute Toxicity to Plants: NOEC >100 mg/l. for 3 d. (Algae)

No data available for Toxicity to Terrestrial Organisms, Persistence and Degradability, Bioaccumulation Potential, Mobility in Soil.

#### Silicon

No data available for Aquatic Toxicity to Fish and Invertebrates, Aquatic Toxicity to Plants and Microorganisms, Toxicity to Terrestrial Organisms, Persistence and Degradability, Bioaccumulation Potential, Mobility in Soil.

Ozone Depletion Potential: This product contains no ingredients listed in the Annexes to the Montréal Protocol on Substances that Deplete the Ozone Layer.

### 12.2. Persistence and Degradability

Aluminum Alloys	
Persistence and Degradability	Not established.

### 12.3. Bioaccumulative Potential

Aluminum Alloys	
Bioaccumulative Potential	Not established.

**12.4. Mobility in Soil** ----- Not available

### 12.5. Other Adverse Effects

**Other Information:** Avoid release to the environment.

## Section 13: Ecological Information

### Waste Treatment Methods

#### Disposal of wastes:

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging: Disposal should be in accordance with applicable regional, national and local laws and regulations.

## Section 14: Transport Information

<b>14.1. In Accordance with DOT</b>	Not regulated for transport
<b>14.2. In Accordance with IMDG</b>	Not regulated for transport
<b>14.3. In Accordance with IATA</b>	Not regulated for transport
<b>14.4. In Accordance with TDG</b>	Not regulated for transport

Note: This product is not regulated for domestic transport by land, air or rail.

Under 49 CFR 171.8, individual packages that contain lead metal (<100 micrometers) below the reportable quantity (RQ) are not regulated.

Under 49 CFR 171.4, except when transporting aboard a vessel, the requirements of this subchapter specific to marine pollutants do not apply to non-bulk packaging transported by motor vehicles, rail cars and aircrafts.

### DOT

Proper shipping name	Not applicable
Hazard Class Packing Group	Not applicable
Reportable Quantity (RQ)	Not applicable
Marine pollutant	Soluble lead compounds are listed as a marine pollutant according to DOT.
Emergency Response Guide	Not applicable

## Section 15: Regulatory Information

<u>International Inventories:</u>	
<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies

<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies
<b>Legend:</b>	
<b>TSCA</b>	United States Toxic Substances Control Act Section 8(b) Inventory
<b>DSL/NDSL</b>	Canadian Domestic Substances List/Non-Domestic Substances List
<b>EINECS/ELINCS</b>	European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
<b>ENCS</b>	Japan Existing and New Chemical Substances
<b>IECSC</b>	China Inventory of Existing Chemical Substances
<b>KECL</b>	Korean Existing and Evaluated Chemical Substances
<b>PICCS</b>	Philippines Inventory of Chemicals and Chemical Substances
<b>AICS</b>	Australia Inventory of Chemicals and Substances
<b>US Federal Regulations SARA 313</b>	Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

### **CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

<b>Chemical Name</b>	<b>CWA – Reportable Quantities</b>	<b>CWA – Priority Pollutants</b>	<b>CWA – Hazardous Substances</b>
Aluminum (CAS 7429-90-5)	none	none	none

### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

### **US State Regulations California Proposition 65**

This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.

<b>Chemical Name</b>	<b>California Proposition 65</b>
Aluminum (CAS 7429-90-5)	Not listed

## US State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Aluminum (CAS 7429-90-5)	X	-	X	-	-

## US EPA Label Information

EPA Pesticide Registration Number: Not available

Please be advised that N/A can either mean Not Applicable or No Data Has Been Established

## Section 16: Other Information

### GHS Full Text Phrases:

Acute Tox. 1 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 1
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Carc. 1B	Carcinogenicity Category 1B
Carc. 2	Carcinogenicity Category 2
Comb. Dust	Combustible Dust
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Sol. 1	Flammable solids Category 1
Repr. 1A	Reproductive toxicity Category 1A
Repr. 2	Reproductive toxicity Category 2
Resp. Sens. 1B	Respiratory sensitisation Category 1B
Skin Sens. 1	Skin sensitization Category 1
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
Water-react. 2	Substances and mixtures which in contact with water emit flammable gases Category 2
H228	Flammable solid May form combustible dust concentrations in air
H261	In contact with water releases flammable gases
H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H330	Fatal if inhaled
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H350	May cause cancer
H351	Suspected of causing cancer
H360	May damage fertility or the unborn child

H361	Suspected of damaging fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H402 H410	Very toxic to aquatic life with long lasting effects

<b>Issue Date</b>	<b>November 19, 2015</b>
<b>Revision Date</b>	<b>N / A</b>
<b>Revision Note</b>	<b>N / A</b>

### **DISCLAIMER**

This 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 guidance for safe handling, use, processing, storage, transportation, disposal and is not to be considered a warranty or quality Specification. The information materials or in any process, unless specified in the text.

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