



# A NEW FORCE IN CHEMICAL MANUFACTURING

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## SAFETY DATA SHEET

ISSUED OCTOBER, 2018 (VALID 5 YEARS FROM DATE OF ISSUE)

### Zero Spat™ Protecta Shield Heavy Duty Dry Ceramic Coating

#### Section 1 - Identification of The Material and Supplier

Chemtools Pty Ltd  
Unit 2/14-16 Lee Holm Road  
St Marys NSW 2760

Phone: 1300 738 250 (business hours)  
Fax: 02 9623 3670  
www.chemtools.com.au

**Chemical nature:** Welding tip coating spray  
**Product Name:** Zero Spat Protecta Shield Heavy Duty Dry Ceramic Coating  
**Product Use:** Used as a coating over welding tips and surrounding areas to protect from welding splatter  
**Creation Date:** October, 2018  
**Poisons Information Centre:** Phone 13 1126 from anywhere in Australia

#### Section 2 - Hazards Identification

##### Statement of Hazardous Nature

This product is classified as: Xi, Irritating. T, Toxic. Hazardous according to the criteria of SWA.  
Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.

**SUSMP Classification:** None allocated.

**ADG Classification:** Class 2.1: Flammable gases.

**UN Number:** 1950, AEROSOLS



##### GHS Signal word: DANGER

Flammable aerosols Category 1  
Gases under pressure - Compressed gas  
Acute Toxicity Oral Category 4  
Skin Irritation Category 2  
Eye irritation Category 2B  
Acute Toxicity Inhalation Category 4  
Specific Target Organ Toxicity - Single Exposure Category 3  
Specific Target Organ Toxicity - Single Exposure Category 3  
Reproductive Toxicity Category 1

##### HAZARD STATEMENT:

H222: Extremely flammable aerosol  
H280: Contains gas under pressure; may explode if heated.  
AUH066: Repeated exposure may cause skin dryness or cracking.  
H302: Harmful if swallowed.  
H315: Causes skin irritation.  
H320: Causes eye irritation.  
H332: Harmful if inhaled.  
H335: May cause respiratory irritation.  
H336: May cause drowsiness or dizziness.

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Phone: 1300 738 250 (business hours)

Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)

H360: May damage fertility or the unborn child.

**PREVENTION**

P210: Keep away from heat, sparks, open flames and hot surfaces. - No smoking.

P211: Do not spray on an open flame or other ignition source.

P251: Pressurized container: Do not pierce or burn, even after use.

P261: Avoid breathing fumes, mists, vapours or spray.

P262: Do not get in eyes, on skin, or on clothing.

P264: Wash contacted areas thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well ventilated area.

P280: Wear protective gloves, protective clothing and eye or face protection.

**RESPONSE**

P312: Call a POISON CENTRE or doctor if you feel unwell.

P362: Take off contaminated clothing and wash before reuse.

P301+P312: IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313: If exposed or concerned: Get medical advice.

P332+P313: If skin irritation occurs: Get medical advice.

P337+P313: If eye irritation persists: Get medical advice.

P372: Explosion risk in case of fire.

P381: Eliminate all ignition sources if safe to do so.

P370+P378: In case of fire, use carbon dioxide, dry chemical, foam. Water fog or fine spray is the preferred medium for large fires.

**STORAGE**

P403: Store in a well-ventilated place.

P410+P412: Store below 30°C, protect from direct sunlight and do not expose to temperatures exceeding 50°C.

**DISPOSAL**

P501: If they can not be recycled, dispose of contents to an approved waste disposal plant and containers to landfill (see Section 13 of this SDS).

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## Emergency Overview

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**Physical Description & Colour:** Off-white liquid dispensed as an aerosol spray

**Odour:** Solvent odour.

**Major Health Hazards:** Exposure can cause respiratory tract and throat irritation, headaches, shortness of breath and symptoms similar to intoxication. Overexposure can produce severe central nervous system depression, coma and respiratory failure. May impair fertility, may cause harm to unborn children, harmful by inhalation and if swallowed, irritating to eyes, respiratory system and skin, irritating to respiratory system and skin, repeated exposure may cause skin dryness or cracking, vapours may cause drowsiness and dizziness.

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## Section 3 - Composition/Information on Ingredients

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Ingredients	CAS No	Conc, %	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
Acetone	67-64-1	<30	1185	2375
Toluene	108-88-3	<25	191	574
Xylene	1330-20-7	<15	350	655
Isobutyl alcohol	78-83-1	<10	152	not set
1-methoxy-2-acetoxyp propane	108-65-6	<10	274	548
Hydrocarbon propellant	68475-59-2	25-35	not set	not set
Other ingredients reported to be non-hazardous	secret	to 100	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

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## Section 4 - First Aid Measures

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### General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

**Inhalation:** If symptoms of poisoning become evident, contact a Poisons Information Centre, or call a doctor at once. Remove source of contamination or move victim to fresh air. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice. DO NOT allow victim to move about unnecessarily. Symptoms of pulmonary oedema can be delayed up to 48 hours after exposure.

**Skin Contact:** Wash gently and thoroughly with warm water (use non-abrasive soap if necessary) for 10-20 minutes or until product is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts) and completely decontaminate them before reuse or discard. If irritation persists, repeat flushing and seek medical attention.

**Eye Contact:** Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

**Ingestion:** If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

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## Section 5 - Fire Fighting Measures

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**Fire and Explosion Hazards:** The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is a moderate risk of an explosion from this product if commercial quantities are involved in a fire. Firefighters should take care and appropriate precautions.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

**Extinguishing Media:** In case of fire, use carbon dioxide, dry chemical or foam. Water fog or fine spray is the preferred medium for large fires. Try to contain spills, minimise spillage entering drains or water courses.

**Fire Fighting:** If a significant quantity of this product is involved in a fire, call the fire brigade. There is a danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is full fire kit and breathing apparatus.

**Flash point:** No specific data. Product is an extremely flammable aerosol.

**Upper Flammability Limit:** Not available

**Lower Flammability Limit:** Not available

**Autoignition temperature:** No data.

**Flammability Class:** Flammable aerosol Category 1 (GHS)

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## Section 6 - Accidental Release Measures

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**Accidental release:** In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Wear full protective clothing including eye/face protection. All skin areas should be covered. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include rubber, Nitrile, butyl rubber, Teflon, PE/EVAL, Responder, polyvinyl alcohol and neoprene. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned below (section 8).

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Take suitable precautions e.g. use of non-sparking equipment to avoid creating sparks or flames which may ignite the spilled material. Leaking gases may form an explosion hazard. Any equipment capable of building an electrostatic charge should be electrically grounded. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

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## Section 7 - Handling and Storage

**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** Store in a cool (below 30°C), well ventilated area. Protect from direct sunlight. Make sure that surrounding electrical devices and switches are suitable. Check containers and valves periodically for leaks. If you keep more than 25kg of flammable gases, you are probably required to license the premises or notify your Dangerous Goods authority. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

## Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

SWA Exposure Limits	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
Acetone	1185	2375
Toluene	191	574
Xylene	350	655
Isobutyl alcohol	152	not set
1-methoxy-2-acetoxyp propane	274	548

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

**Eye Protection:** Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

**Skin Protection:** Prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered. See below for suitable material types.

**Protective Material Types:** We suggest that protective clothing be made from the following materials: rubber, nitrile, butyl rubber, Teflon, PE/EVAL, Responder, polyvinyl alcohol, neoprene.

**Respirator:** Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Eyebaths or eyewash stations and safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

## Section 9 - Physical and Chemical Properties:

<b>Physical Description &amp; colour:</b>	Off-white liquid dispensed as an aerosol spray
<b>Odour:</b>	Solvent odour.
<b>Boiling Point:</b>	56-111°C at 100kPa (for dispensed liquid)
<b>Freezing/Melting Point:</b>	No specific data. Liquid at normal temperatures.
<b>Volatiles:</b>	No data.
<b>Vapour Pressure:</b>	No data.
<b>Vapour Density:</b>	No data.
<b>Specific Gravity:</b>	0.93-1.0 at 20°C (dispensed liquid)
<b>Water Solubility:</b>	Partially miscible.
<b>pH:</b>	No data.
<b>Volatility:</b>	No data.
<b>Odour Threshold:</b>	No data.
<b>Evaporation Rate:</b>	No data.
<b>Coeff Oil/water Distribution:</b>	No data
<b>Autoignition temp:</b>	No data.

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## Section 10 - Stability and Reactivity

**Reactivity:** This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

**Conditions to Avoid:** Store below 30°C, protect from direct sunlight and do not expose to temperatures exceeding 50°C. Keep away from sources of sparks or ignition. Any electrical equipment in the area of this product should be flame proofed.

**Incompatibilities:** strong acids, strong bases, oxidising agents.

**Fire Decomposition:** Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

**Polymerisation:** This product will not undergo polymerisation reactions.

## Section 11 - Toxicological Information

**Toxicity (acetone):** LD<sub>50</sub> Oral, Rat 5800mg/kg

LD<sub>50</sub> Oral, Mouse = 3000mg/kg

LD<sub>50</sub> Oral, Rabbit = 5340mg/kg

LD<sub>50</sub> Dermal, Guinea Pig = >9400mg/kg

In Delayed (Chronic and subchronic) studies, an 8 week inhalation study in rats showed no significant effects at 19,000ppm 5 days/week, and a 90 day oral toxicity in rats showed a no-observed-effects-level of 100mg/kg/day and a low-observed-effects-level of 500mg/kg/day based on increased liver and kidney weights and nephrotoxicity.

Ames Assay (*S. typhimium*): Negative

Chromosome Aberrations and Sister Chromatid Exchange Assays: Negative

Point Mutation in Mouse Lymphoma Cells: Negative

DNA Cell-binding Assay: Negative

Toluene is a SWA Class 1 Reproductive risk, may impair fertility.

## Classification of Hazardous Ingredients

Ingredient	Risk Phrases
Acetone	Conc>=20%: Xi; R36
<ul style="list-style-type: none"> <li>Flammable liquid – category 2</li> <li>Eye irritation – category 2A</li> <li>Specific target organ toxicity (single exposure) – category 3</li> </ul>	
Toluene	Conc>=20%: T; R60; R61; R48/20; R38
<ul style="list-style-type: none"> <li>Flammable liquid – category 2</li> <li>Skin irritation – category 2</li> <li>Specific target organ toxicity (repeated exposure) – category 2</li> <li>Reproductive toxicity – category 1A</li> </ul>	
Xylene	No risk phrases at concentrations found in this product
<ul style="list-style-type: none"> <li>Flammable liquid – category 3</li> <li>Acute toxicity – category 4</li> <li>Specific target organ toxicity (single exposure) – category 3</li> <li>Skin irritation – category 2</li> </ul>	
Isobutyl Alcohol	>=5%Conc<10%: Xi; R36
<ul style="list-style-type: none"> <li>Flammable liquid – category 3</li> <li>Specific target organ toxicity (single exposure) – category 3</li> <li>Skin irritation – category 2</li> <li>Eye damage – category 1</li> <li>Specific target organ toxicity (single exposure) – category 3</li> </ul>	
1-methoxy-2-acetoxyp propane	
<ul style="list-style-type: none"> <li>Flammable liquid – category 3</li> </ul>	
Alkanes, C <sub>3-4</sub> (hydrocarbon propellant)	Conc>=0.1%: T; R45; R46
<ul style="list-style-type: none"> <li>Gases under pressure</li> <li>Flammable gas – category 1</li> <li>Carcinogenicity – category 1B</li> <li>Germ cell mutagenicity – category 1B</li> </ul>	

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## Potential Health Effects

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**Inhalation:**

**Short Term Exposure:** High vapour pressures may cause drowsiness and dizziness. In addition product is an inhalation irritant. Symptoms may include headache, irritation of nose and throat and increased secretion of mucous in the nose and throat. Other symptoms may also become evident, but they should disappear after exposure has ceased. Intentional misuse by deliberately concentrating and inhaling contents of aerosol containers can be harmful or fatal.

**Long Term Exposure:** Vapours may cause drowsiness and dizziness.

**Skin Contact:**

**Short Term Exposure:** Major health effect from this product is misuse of the aerosol function. If sprayed continuously on skin or in eyes, it can cause frostbite.

**Long Term Exposure:** Repeated exposure may cause skin dryness or cracking.

**Eye Contact:**

**Short Term Exposure:** If sprayed directly in the eye, this product will irritate. If spraying is prolonged, it may cause damage through frostbite.

**Long Term Exposure:** No data for health effects associated with long term eye exposure.

**Ingestion:**

**Short Term Exposure:** Significant oral exposure is considered to be unlikely. Available data shows that this product is harmful, but symptoms are not available. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.

**Long Term Exposure:** No data for health effects associated with long term ingestion.

**Carcinogen Status:**

**SWA:** Alkanes, C3-4 is classified by SWA as a Category 1b Carcinogen

See the SWA website for further details. A web address has not been provided as addresses frequently change.

**NTP:** No significant ingredient is classified as carcinogenic by NTP.

**IARC:** Toluene is Class 3 - unclassifiable as to carcinogenicity to humans.

Xylene is Class 3 - unclassifiable as to carcinogenicity to humans.

See the IARC website for further details. A web address has not been provided as addresses frequently change.

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## Section 12 - Ecological Information

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Insufficient data to be sure of status. The following data relates to acetone.

BOD: 1.22g O<sub>2</sub>/g (5 days)

Fish: LC<sub>50</sub> rainbow trout: 5540mg/L      LC<sub>50</sub> bluegill sunfish: 8300mg/L

Daphnia: EC<sub>50</sub> 10mg/L (24-48 hour)

Bioconcentration factor is 1, suggesting bioconcentration in aquatic organisms is low. This was calculated using an experimental Log Kow value of -0.24

Octanol/water partition coefficient: 0.58

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## Section 13 - Disposal Considerations

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**Disposal:** Containers should be emptied as completely as practical before disposal. If possible, recycle product and containers either in-house or send to recycle company. If this is not practical, send to a commercial waste disposal site. Do not puncture or incinerate aerosol cans, even when empty.

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## Section 14 - Transport Information

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**Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.**

**UN Number:** 1950, AEROSOLS

**Hazchem Code:** 2YE

**Special Provisions:** 63, 190, 277, 327, 344, 381

**Limited quantities:** ADG 7 specifies a Limited Quantity value of 1000mL for this class of product.

**Dangerous Goods Class:** Class 2.1: Flammable gases.

**Packing Group:** Not set

**Packing Instruction:** P207, LP200

Class 2.1 Flammable gases shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 3 (Flammable Liquids) (where both flammable liquids and flammable gases are in bulk), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.1

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(Oxidising Agents), 5.2 (Organic Peroxides), and 7 (Radioactive Substances). They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.2 (Non-flammable Non-Toxic gases), 3 (Flammable liquids except where both flammable liquids and flammable gases are in bulk), 6 (Toxic Substances), 8 (Corrosive Substances) 9 (Miscellaneous dangerous goods), Foodstuffs and foodstuff empties.

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### **Section 15 - Regulatory Information**

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**AICS:** All of the significant ingredients in this formulation are compliant with NICNAS regulations. The following ingredients: Acetone, Toluene, Xylene, are mentioned in the SUSMP.

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### **Section 16 - Other Information**

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**This SDS contains only safety-related information. For other data see product literature.**

**Acronyms:**

<b>ADG Code</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 <sup>th</sup> edition)
<b>AICS</b>	Australian Inventory of Chemical Substances
<b>SWA</b>	Safe Work Australia, formerly ASCC and NOHSC
<b>CAS number</b>	Chemical Abstracts Service Registry Number
<b>Hazchem Code</b>	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
<b>IARC</b>	International Agency for Research on Cancer
<b>NOS</b>	Not otherwise specified
<b>NTP</b>	National Toxicology Program (USA)
<b>SUSMP</b>	Standard for the Uniform Scheduling of Medicines & Poisons
<b>UN Number</b>	United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS

OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (Feb 2016)

### **SAFETY DATA SHEET**