

# SAFETY DATA SHEET

Grainol 5EWA1

## 1. Identification

**Product identifier** Moly-Graph® Extreme Pressure Multi-Purpose Lithium Grease

**Other means of identification**

**Product code** SL3330

**Recommended use** Lubricating grease

**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Manufactured or sold by:**

**Company name** CRC Industries, Inc.

**Address** 885 Louis Dr.  
Warminster, PA 18974 US

**Telephone**

**General Information** 215-674-4300

**Technical Assistance** 800-521-3168

**Customer Service** 800-272-4620

**24-Hour Emergency (CHEMTREC)** 800-424-9300 (US)  
703-527-3887 (International)

**Website** www.crcindustries.com

## 2. Hazard(s) identification

**Physical hazards** Not classified.

**Health hazards** Acute toxicity, inhalation Category 4  
Skin corrosion/irritation Category 2  
Serious eye damage/eye irritation Category 2

**Environmental hazards** Hazardous to the aquatic environment, long-term hazard Category 3

**OSHA defined hazards** Not classified.

### Label elements



**Signal word** Warning

**Hazard statement** Causes skin irritation. Causes serious eye irritation. Harmful if inhaled. Harmful to aquatic life with long lasting effects.

**Precautionary statement**

**Prevention** Use with adequate ventilation. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Wear protective gloves and eye/face protection. Avoid release to the environment.

**Response** If on skin: Wash with plenty of water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

**Storage** Store away from incompatible materials.

**Disposal** Dispose of contents/container in accordance with local/regional/national regulations.

**Hazard(s) not otherwise classified (HNOC)** None known.

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### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Distillates (petroleum), hydrotreated heavy naphthenic		64742-52-5	60 - 70
Residual oils (petroleum), solvent-refined		64742-01-4	20 - 30
Lithium hydroxide solution		1310-66-3	1 - 10
Zinc alkyldithiophosphate		68649-42-3	1 - 10
Distillates (petroleum), solvent-refined heavy paraffinic		64741-88-4	< 1
Silica, Crystalline - Quartz		14808-60-7	< 1

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

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### 4. First-aid measures

<b>Inhalation</b>	Under normal conditions of intended use, this material is not expected to be an inhalation hazard. If inhaled, remove to fresh air. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Remove contaminated clothing. Wash with plenty of soap and water. Seek medical attention if tissue appears damaged or if pain or irritation persists. If burned by hot material, cool skin by quenching with large amounts of cool water. If material is injected under the skin, seek medical attention immediately. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Do not induce vomiting without advice from poison control center. Rinse mouth. Never give anything by mouth to a victim who is unconscious or is having convulsions. If ingestion of a large amount does occur, call a poison control center immediately.
<b>Most important symptoms/effects, acute and delayed</b>	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
<b>Indication of immediate medical attention and special treatment needed</b>	In the event of injection in underlying tissue, immediate treatment should include extensive incision, debridement and saline irrigation. Inadequate treatment can result in ischemia and gangrene. Early symptoms may be minimal. Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

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### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Not established.
<b>Specific hazards arising from the chemical</b>	Molten material can form flaming droplets if ignited. Addition of water or foam to the fire may cause frothing. Use of water on product above 100 °C (212 °F) can cause product to expand with explosive force.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

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### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of dust. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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**Methods and materials for containment and cleaning up**

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). The product is immiscible with water and will spread on the water surface. Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Prevent entry into waterways, sewer, basements or confined areas.

**Environmental precautions**

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

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**7. Handling and storage**

**Precautions for safe handling**

If this product is stored or applied in high-pressure systems such as grease guns or hydraulic lines, there is the potential for accidental injection into the skin and underlying tissues. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, please see the product label.

**Conditions for safe storage, including any incompatibilities**

Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

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**8. Exposure controls/personal protection**

**Occupational exposure limits**

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value	Form
Ammonium hydroxide (CAS 1336-21-6)	PEL	35 mg/m3	
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	PEL	50 ppm	Mist.
		5 mg/m3	
Distillates (petroleum), solvent-refined heavy paraffinic (CAS 64741-88-4)	PEL	2000 mg/m3	Mist.
		500 ppm	
		5 mg/m3	
		2000 mg/m3	
		500 ppm	

**US. OSHA Table Z-3 (29 CFR 1910.1000)**

Components	Type	Value	Form
Silica, Crystalline - Quartz (CAS 14808-60-7)	TWA	0.3 mg/m3	Total dust.
		0.1 mg/m3	Respirable.
		2.4 mppcf	Respirable.

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Ammonium hydroxide (CAS 1336-21-6)	STEL	35 ppm	
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	TWA	25 ppm	Inhalable fraction.
	TWA	5 mg/m3	
Distillates (petroleum), solvent-refined heavy paraffinic (CAS 64741-88-4)	TWA	5 mg/m3	Inhalable fraction.

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Silica, Crystalline - Quartz (CAS 14808-60-7)	TWA	0.025 mg/m <sup>3</sup>	Respirable fraction.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value	Form
Ammonium hydroxide (CAS 1336-21-6)	STEL	27 mg/m <sup>3</sup>	
		35 ppm	
	TWA	18 mg/m <sup>3</sup>	
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	STEL	25 ppm	Mist.
		10 mg/m <sup>3</sup>	
Distillates (petroleum), solvent-refined heavy paraffinic (CAS 64741-88-4)	TWA	5 mg/m <sup>3</sup>	Mist.
	STEL	10 mg/m <sup>3</sup>	Mist.
Silica, Crystalline - Quartz (CAS 14808-60-7)	TWA	5 mg/m <sup>3</sup>	Mist.
	TWA	0.05 mg/m <sup>3</sup>	Respirable dust.

**US. AIHA Workplace Environmental Exposure Level (WEEL) Guides**

Components	Type	Value
Lithium hydroxide solution (CAS 1310-66-3)	Ceiling	1.8 mg/m <sup>3</sup>

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Exposure guidelines</b>	Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.
<b>Appropriate engineering controls</b>	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
<b>Hand protection</b>	Wear protective gloves such as: Nitrile. Rubber.
<b>Other</b>	Wear appropriate chemical resistant clothing.
<b>Respiratory protection</b>	If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties**

<b>Appearance</b>	
<b>Physical state</b>	Solid.
<b>Form</b>	Grease.
<b>Color</b>	Gray.
<b>Odor</b>	Mild petroleum.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.

<b>Initial boiling point and boiling range</b>	680 °F (360 °C) estimated
<b>Flash point</b>	302 °F (150 °C) Open Cup
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	< 0.001 kPa
<b>Vapor density</b>	> 1 (air = 1)
<b>Relative density</b>	0.91
<b>Solubility (water)</b>	Insoluble.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	500 °F (260 °C) estimated
<b>Decomposition temperature</b>	Not available.
<b>Viscosity (kinematic)</b>	Not available.
<b>Percent volatile</b>	Not available.

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Heat, flames and sparks. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Carbon oxides. Hydrocarbon fumes and smoke. Sulfur oxides. Oxides of phosphorus. Zinc oxide. Nitrogen oxides (NOx).

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	Health injuries are not known or expected under normal use.
<b>Inhalation</b>	Harmful if inhaled.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Causes serious eye irritation.

**Symptoms related to the physical, chemical and toxicological characteristics** Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

### Information on toxicological effects

**Acute toxicity** Harmful if inhaled.

Product	Species	Test Results
Moly-Graph® Extreme Pressure Multi-Purpose Lithium Grease		
<b>Acute</b>		
Dermal		
LD50	Rabbit	2413.3662 mg/kg estimated
Inhalation		
LC50	Rat	9.9672 mg/l, 4 hours estimated
Oral		
LD50	Rat	4794.1357 mg/kg estimated

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.
<b>Respiratory sensitization</b>	Not available.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled. Risk of cancer cannot be excluded with prolonged exposure.
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not available.
<b>Chronic effects</b>	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

## 12. Ecological information

<b>Ecotoxicity</b>	Harmful to aquatic life.		
<b>Product</b>		<b>Species</b>	<b>Test Results</b>
Moly-Graph® Extreme Pressure Multi-Purpose Lithium Grease			
<b>Aquatic</b>			
Crustacea	EC50	Daphnia	16.1325 mg/l, 48 hours estimated
Fish	LC50	Fish	103.7851 mg/l, 96 hours estimated
<b>Components</b>		<b>Species</b>	<b>Test Results</b>
Ammonium hydroxide (CAS 1336-21-6)			
<b>Aquatic</b>			
Crustacea	EC50	Water flea (Daphnia magna)	0.66 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	8.2 mg/l, 96 hours
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)			
<b>Aquatic</b>			
Crustacea	EC50	Water flea (Daphnia magna)	1000 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	5000 mg/l, 96 hours
Residual oils (petroleum), solvent-refined (CAS 64742-01-4)			
<b>Aquatic</b>			
Crustacea	EC50	Water flea (Daphnia magna)	1000 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	5000 mg/l, 96 hours

Components	Species	Test Results
Zinc alkyldithiophosphate (CAS 68649-42-3)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Daphnia magna) 1 - 5 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) 1 - 5 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

<b>Disposal of waste from residues / unused products</b>	This product is not a RCRA hazardous waste (See 40 CFR Part 261.20 – 261.33). Empty containers may be recycled. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	Not regulated.
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

<b>DOT</b>	Not regulated as dangerous goods.
<b>IATA</b>	Not regulated as dangerous goods.
<b>IMDG</b>	Not regulated as dangerous goods.

### 15. Regulatory information

<b>US federal regulations</b>	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.	
<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>	Not regulated.	
<b>SARA 304 Emergency release notification</b>	Not regulated.	
<b>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	Not listed.	
<b>US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance</b>	Ammonium hydroxide (CAS 1336-21-6) Zinc alkyldithiophosphate (CAS 68649-42-3)	
<b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>	Ammonium hydroxide (CAS 1336-21-6) Zinc alkyldithiophosphate (CAS 68649-42-3)	
<b>CERCLA Hazardous Substances: Reportable quantity</b>	Ammonium hydroxide (CAS 1336-21-6)	1000 LBS
	Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.	
<b>Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List</b>	Not regulated.	
<b>Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)</b>	Not regulated.	
<b>Safe Drinking Water Act (SDWA)</b>	Not regulated.	

**Food and Drug Administration (FDA)** Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Section 311/312 Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance** No

**US state regulations**

**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. New Jersey Worker and Community Right-to-Know Act**

Ammonium hydroxide (CAS 1336-21-6)  
Lithium hydroxide solution (CAS 1310-66-3)  
Silica, Crystalline - Quartz (CAS 14808-60-7)  
Zinc alkyldithiophosphate (CAS 68649-42-3)

**US. Massachusetts RTK - Substance List**

None.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Ammonium hydroxide (CAS 1336-21-6)  
Silica, Crystalline - Quartz (CAS 14808-60-7)

**US. Rhode Island RTK**

Ammonium hydroxide (CAS 1336-21-6)  
Zinc alkyldithiophosphate (CAS 68649-42-3)

**US. California Proposition 65**

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

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

Silica, Crystalline - Quartz (CAS 14808-60-7) Listed: October 1, 1988

**Volatile organic compounds (VOC) regulations**

**EPA**

**Consumer products (40 CFR 59, Subpt. C)** Not regulated

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

**Issue date** 11-24-2014  
**Prepared by** Allison Cho  
**Version #** 01



**Further information**

Not available.

**HMIS® ratings**

Health: 1  
Flammability: 1  
Physical hazard: 0  
Personal protection: B

**NFPA ratings**

Health: 1  
Flammability: 1  
Instability: 0

**NFPA ratings**



**Disclaimer**

CRC cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries.

