HAZARDOUS MATERIALS LABEL – CATEGORY: SSL

STAINLESS STEEL

GENERAL HAZARD STATEMENT: Solid metallic products distributed by Allegheny Ludlum are generally classified as "articles" and do not constitute a hazardous material in solid form under the terms of the OSHA Hazard Communication Standard. Any articles manufactured from these solid products would be generally classified as non-hazardous. However, some metallic elements contained in these products have been determined to be toxic and are subject to regulatory controls. These elements can be emitted as airborne contaminants under certain processing conditions such as burning, melting, cutting, sawing, brazing, grinding, milling, machining.

Certain materials and equipment utilized in processing of steel products (cutting/machining fluids, coatings, processing lubricants, cleaning/pickling chemicals, welding fluxes, torch and plasma cutting systems) may constitute a health hazard and should be treated accordingly.

CAUTION

FOR DUST OR FUME FROM WELDING OR OTHER PROCESSING:

MAY CAUSE RESPIRATORY TRACT, SKIN, AND EYE IRRITATION AND/OR SENSITIZATION, AND MAY CAUSE METAL FUME FEVER.

CANCER HAZARD (CONTAINS NICKEL AND CHROMIUM*). DELAYED DAMAGE TO LUNGS, KIDNEYS, LIVER, CENTRAL NERVOUS SYSTEM OR OTHER ORGANS MAY OCCUR. RISK OF THESE EFFECTS DEPENDS ON DURATION AND LEVEL OF EXPOSURE.

**** Stainless steel products as provided contain chromium metal in the zero valence state. As such, chromium metal does not present any unusual health hazard. However, welding, torch cutting, brazing or perhaps grinding of the chromium metal in stainless steel products may generate airborne concentrations of hexavalent chromium, (Cr^{+6}), a confirmed human carcinogen.***

PRECAUTIONS: Avoid breathing or contact with dust or fume. Adequate ventilation is required while welding burning, melting, cutting, brazing, grinding, and machining. Wear appropriate personal protective equipment.

FIRST AID:

INHALATION - If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

EYE CONTACT - Immediately flush eyes with plenty of water (for at least 15 minutes). Get medical attention.

SKIN CONTACT - If dust gets on skin, wash contaminated area with soap and water. Remove and wash contaminated clothing. Get medical attention if irritation develops and persists.

INGESTION - If large quantities of dust are swallowed, get medical attention immediately. **DO NOT** induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person.

For additional information refer to appropriate AL Material Safety Data Sheet, Category: SS

ALLEGHENY LUDLUM CORPORATION, 100 RIVER ROAD, BRACKENRIDGE, PENNSYLVANIA 15014; (724) 226-5980

DATE: December 15, 2007 **REVISION:** Original **SUPERSEDES LABEL DATED:** All prior labels issued by ATI Allegheny Ludlum

WEBSITE: www.alleghenyludlum.com

QUIKRETE
CEMENT & CONCRETE PRODUCTS™

RAPID SETTING REPAIR MATERIALS

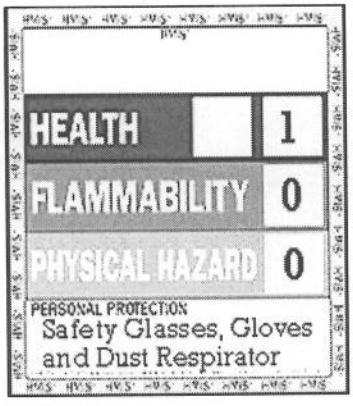
MATERIAL SAFETY DATA SHEET
(Complies with OSHA 29 CFR 1910.1200)

SECTION I: PRODUCT IDENTIFICATION

The QUIKRETE® Companies
One Securities Centre
3490 Piedmont Road, Suite 1300
Atlanta, GA 30329

Emergency Telephone Number
(770) 216-9580

Information Telephone Number
(770) 216-9580



MSDS D4
Revision: Aug-08

QUIKRETE® Product Name	Product #
RAPID ROAD REPAIR	FIBERED 1242-50, UN-FIBERED 1242-52 EXTENDED 1242-51
HYDRAULIC WATER STOP	1126-00
QUICK SETTING CEMENT	1240-00
EXTERIOR USE ANCHORING CEMENT	1245-80

PRODUCT USE: HYDRAULIC CEMENT-BASED RAPID-SETTING REPAIR MATERIALS

SECTION II - HAZARD IDENTIFICATION

Route(s) of Entry: Inhalation, Skin, Ingestion
Acute Exposure: Product becomes alkaline when exposed to moisture. Exposure can dry the skin, cause alkali burns and affect the mucous membranes. Dust can irritate the eyes and upper respiratory system. Toxic effects noted in animals include, for acute exposures, alveolar damage with pulmonary edema.
Chronic Exposure: Dust can cause inflammation of the lining tissue of the interior of the nose and inflammation of the cornea. Hypersensitive individuals may develop an allergic dermatitis.
Carcinogenicity: Since Portland cement and blended cements are manufactured from raw materials mined from the earth (limestone, marl, sand, shale, etc.) and process heat is provided by burning fossil fuels, trace, but detectable, amounts of naturally occurring, and possibly harmful, elements may be found during chemical analysis. Under ASTM standards, Portland cement may contain 0.75 % insoluble residue. A fraction of these residues may be free crystalline silica. Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs and possibly cancer. There is evidence that exposure to respirable silica or the disease silicosis is associated with an increased incidence of Scleroderma, tuberculosis and kidney disorders.

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Carcinogenicity Listings:

NTP:	Known carcinogen
OSHA:	Not listed as a carcinogen
IARC Monographs:	Group 1 Carcinogen
California Proposition 65:	Known carcinogen

NTP: The National Toxicology Program, in its "Ninth Report on Carcinogens" (released May 15, 2000) concluded that "Respirable crystalline silica (RCS), primarily quartz dusts occurring in industrial and occupational settings, is *known to be a human carcinogen*, based on sufficient evidence of carcinogenicity from studies in humans indicating a causal relationship between exposure to RCS and increased lung cancer rates in workers exposed to crystalline silica dust (reviewed in IAC, 1997; Brown *et al.*, 1997; Hind *et al.*, 1997)

IARC: The International Agency for Research on Cancer ("IARC") concluded that there was "*sufficient evidence* in humans for the carcinogenicity of crystalline silica in the forms of quartz or cristobalite from occupational sources", and that there is "*sufficient evidence* in experimental animals for the carcinogenicity of quartz or cristobalite." The overall IARC evaluation was that "crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is *carcinogenic to humans (*Group 1)." The IARC evaluation noted that "carcinogenicity was not detected in all industrial circumstances or studies. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." For further information on the IARC evaluation, see IARC Monographs on the Evaluation of carcinogenic Risks to Humans, Volume 68, "Silica, Some Silicates." (1997)

Signs and Symptoms of Exposure: Symptoms of excessive exposure to the dust include shortness of breath and reduced pulmonary function. Excessive exposure to skin and eyes especially when mixed with water can cause caustic burns as severe as third degree.

Medical Conditions Generally Aggravated by Exposure: Individuals with sensitive skin and with pulmonary and/or respiratory disease, including, but not limited to, asthma and bronchitis, or subject to eye irritation, should be precluded from exposure. Exposure to crystalline silica or the disease silicosis is associated with increased incidence of scleroderma, Tuberculosis and possibly increased incidence of kidney lesions.

Chronic Exposure: Dust can cause inflammation of the lining tissue of the interior of the nose and inflammation of the cornea. Hypersensitive individuals may develop an allergic dermatitis. (May contain trace (<0.05 %) amounts of chromium salts or compounds including hexavalent chromium, or other metals found to be hazardous or toxic in some chemical forms. These metals are mostly present as trace substitutions within the principal minerals)

Medical Conditions Generally Aggravated by Exposure: Individuals with sensitive skin and with pulmonary and/or respiratory disease, including, but not limited to, asthma and bronchitis, or subject to eye irritation, should be precluded from exposure.

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SECTION III - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components	CAS No.	PEL (OSHA) mg/M^3	TLV (ACGIH) mg/M^3
Silica Sand, crystalline	14808-60-7	$\frac{10}{\%SiO_2+2}$	0.05 (respirable)
Portland Cement	65997-15-1	5	5
May Contain one or more of the following ingredients:			
Amorphous Silica	07631-86-9	$\frac{80\ mg/M^3}{\%\ SiO_2}$	10
Calcium Sulfate	10101-41-4 or 13397-24-5	5	5
Lime	01305-62-0	5	5
Fly Ash	68131-74-8	5	5
Calcium Aluminate Cement	65997-16-2	5	5
Clay	01332-58-7	5	5
Pulverized Limestone	01317-65-3	5	5

Other Limits: National Institute for Occupational Safety and Health (NIOSH). Recommended standard maximum permissible concentration=0.05 mg/M^3 (respirable free silica) as determined by a full-shift sample up to 10-hour working day, 40-hour work week. See NIOSH Criteria for a Recommended Standard Occupational Exposure to Crystalline Silica

SECTION IV – First Aid Measures

Eyes: Immediately flush eye thoroughly with water. Continue flushing eye for at least 15 minutes, including under lids, to remove all particles. Call physician immediately.
Skin: Wash skin with cool water and pH-neutral soap or a mild detergent. Seek medical treatment if irritation or inflammation develops or persists. Seek immediate medical treatment in the event of burns.
Inhalation: Remove person to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. Seek medical help if coughing and other symptoms do not subside. Inhalations of large amounts of Portland cement require immediate medical attention.
Ingestion: Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately.

SECTION V - FIRE AND EXPLOSION HAZARD DATA

Flammability: Noncombustible and not explosive.
Auto-ignition Temperature: Not Applicable
Flash Points: Not Applicable

SECTION VI – ACCIDENTAL RELEASE MEASURES

If spilled, use dustless methods (vacuum) and place into covered container for disposal (if not contaminated or wet). Use adequate ventilation to keep exposure to airborne contaminants below the exposure limit.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND STORAGE

Do not allow water to contact the product until time of use. DO NOT BREATHE DUST. In dusty environments, the use of an OSHA, MSHA or NIOSH approved respirator and tight fitting goggles is recommended.

SECTION VIII – EXPOSURE CONTROL MEASURES

Engineering Controls: Local exhaust can be used, if necessary, to control airborne dust levels.

Personal Protection: The use of barrier creams or impervious gloves, boots and clothing to protect the skin from contact is recommended. Following work, workers should shower with soap and water. Precautions must be observed because burns occur with little warning -- little heat is sensed.

WARN EMPLOYEES AND/OR CUSTOMERS OF THE HAZARDS AND REQUIRED OSHA PRECAUTIONS ASSOCIATED WITH THE USE OF THIS PRODUCT.

Exposure Limits: Consult local authorities for acceptable exposure limits

SECTION IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Appearance: Gray to gray-brown colored powder. Some products contain coarse aggregate.

Specific Gravity:	2.6 to 3.15	**Melting Point:**	>2700°F
Boiling Point:	>2700°F	**Vapor Pressure:**	Not Applicable
Vapor Density:	Not Applicable	**Evaporation Rate:**	Not Applicable
Solubility in Water:	Slight	**Odor:**	Not Applicable

SECTION X - REACTIVITY DATA

Stability: Stable.
Incompatibility (Materials to Avoid): Material when mixed with water will react with Aluminum and other alkali and alkaline earth elements liberating hydrogen gas.
Hazardous Decomposition or By-products: None
Hazardous Polymerization: Will Not Occur.
Condition to Avoid: Keep dry until used to preserve product utility.

SECTION XI – TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation, Ingestion
Toxicity to Animals:
LD50: Not Available
LC50: Not Available
Chronic Effects on Humans: Conditions aggravated by exposure include eye disease, skin disorders and Chronic Respiratory conditions.
Special Remarks on Toxicity: Not Available

SECTION XII – ECOLOGICAL INFORMATION

Ecotoxicity: Not Available
BOD5 and COD: Not Available
Products of Biodegradation: Not available
Toxicity of the Products of Biodegradation: Not available
Special Remarks on the Products of Biodegradation: Not available

SECTION XIII – DISPOSAL CONSIDERATIONS

Waste Disposal Method: The packaging and material may be land filled; however, material should be covered to minimize generation of airborne dust. This product is not classified as a hazardous waste under the authority of the RCRA (40CFR 261) or CERCLA (40CFR 117&302).

SECTION XIV – TRANSPORT INFORMATION

DOT/UN Shipping Name: Non-regulated
DOT Hazard Class: Non-regulated
Shipping Name: Non-regulated
Non-Hazardous under U.S. DOT and TDG Regulations

SECTION XV – OTHER REGULATORY INFORMATION

US OSHA 29CFR 1910.1200: Considered hazardous under this regulation and should be included in the employers hazard communication program
SARA (Title III) Sections 311 & 312: Qualifies as a hazardous substance with delayed health effects
SARA (Title III) Section 313: Not subject to reporting requirements
TSCA (May 1997): All components are on the TSCA inventory list
Federal Hazardous Substances Act: Is a hazardous substance subject to statues promulgated under the subject act
Canadian Environmental Protection Act: Not listed
WHMIS Classification: Considered to be a hazardous material under the Hazardous Products Act as defined by the Controlled Products Regulations (Class D2A, E- Corrosive Material) and subject to the requirements of Health Canada's Workplace Hazardous Material Information (WHMIS). This product has been classified according to the hazard criteria of the Controlled Products Regulation

(CPR). This document complies with the WHMIS requirements of the Hazardous Products Act (HPA) and the CPR.

SECTION XVI – OTHER INFORMATION

HMIS-III:

Health –
0 = No significant health risk
1 = Irritation or minor reversible injury possible
2 = Temporary or minor injury possible
3 = Major injury possible unless prompt action is taken
4 = Life threatening, major or permanent damage possible

Flammability-
0 = Material will not burn
1 = Material must be preheated before ignition will occur
2 = Material must be exposed to high temperatures before ignition
3 = Material capable of ignition under normal temperatures
4 = Flammable gases or very volatile liquids; may ignite spontaneously

Physical Hazard-
0 = Material is normally stable, even under fire conditions
1 = Material normally stable but may become unstable at high temps
2 = Materials that are unstable and may undergo react at room temp
3 = Materials that may form explosive mixtures with water
4 = Materials that are readily capable of explosive water reaction

Abbreviations:

ACGIH	American Conference of Government Industrial Hygienists
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act
CFR	Code of Federal Regulations
CPR	Controlled Products Regulations (Canada)
DOT	Department of Transportation
IARC	International Agency for Research
MSHA	Mine Safety and Health Administration
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicity Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TWA	Time-weighted Average
WHMIS	Workplace Hazardous Material Information System

Revision #07-01, supersedes all previous revisions.
Created: 10/25/2006
Last Updated: August 14, 2008

QUIKRETE

CEMENT & CONCRETE PRODUCTS™

NOTE: The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to silica contained in our products.

ACTIO MSDS ID: 313450

View Section : 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

SECTION 1: CHEMICAL PRODUCT and COMPANY IDENTIFICATION 572E

Product Name:	**Chain and Wire Rope Lube (Aerosol)**
Manufacturer MSDS.:	572E
Manufacturer Name:	CRC Industries, Inc.
Address:	885 Louis Drive Warminster, PA 18974
	Technical Assistance: (800) 521-3168
	www.crcindustries.com
Business Phone:	(215) 674-4300
CHEMTREC Numbers:	
For emergencies in the US, call CHEMTREC: 800-424-9300	
Customer Service Phone:	(800) 272-4620
Revision Date:	12/7/2006
Product Codes:	03050, 83050

NFPA

HMIS

HEALTH	2
FIRE	3
REACTIVITY	0
PPE	B

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SECTION 2 : COMPOSITION, INFORMATION ON INGREDIENTS 572E

Ingredient Name	CAS#	Ingredient Percent
Acrylic copolymer EC Index Number: 1	Proprietary	5 - 10% by Weight
Molybdenum complex EC Index Number: 1	72030-25-2	< 1% by Weight
Hexane isomers EC Index Number: 1	Various	55 - 65% by Weight
n-Hexane EC Index Number: 1	110-54-3	4.4% by Weight
Molybdenum complex EC Index Number: 1	64742-52-5	< 1% by Weight
Liquefied petroleum gas EC Index Number: 1	68476-86-8	25 - 35% by Weight

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SECTION 3 : HAZARDS IDENTIFICATION 572E

Emergency Overview:	DANGER Extremely flammable. Harmful or fatal if swallowed. Contents under pressure.
Physical State:	Liquid
Color:	Clear, light amber
Odor:	Mild solvent odor
	As defined by OSHA's Hazard Communication Standard, this product is hazardous.

Applies to all ingredients:

Potential Health Effects:

Eye Contact:	May cause mild irritation including stinging and redness, but does not injure eye.
Skin Contact:	Single, brief exposures may cause mild irritation. Frequent or prolonged contactmay cause more severe irritation, defatting of the skin, and dermatitis.
Inhalation:	High vapor concentrations are irritating to the respiratory tract and may causeheadaches, dizziness, anesthesia, drowsiness, unconsciousness and other centralnervous system effects, including death. May cause peripheral nervous systemdisorder and/or damage.
Ingestion:	Low order of toxicity by ingestion. Main hazard is aspiration into the lungs duringswallowing or vomiting. Small amounts aspirated into the respiratory system maycause bronchopneumonia or pulmonary adema, possible progressing to death.
Target Organs:	Central nervous system, peripheral nervous system, respiratory system
Aggravation of Pre-Existing Conditions:	Skin and respiratory conditions
	See Section 11 for toxicology and carcinogenicity information on product ingredients.

n-Hexane:

Chronic Health Effects:	Overexposure to n-hexane may cause progressive and potentially irreversibledamage to the peripheral nervous system, particularly in the arms and legs.

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SECTION 4 : FIRST AID MEASURES 572E

Eye Contact:	Immediately flush with plenty of water for 15 minutes. Call a physician if irritation persists.
Skin Contact:	Remove contaminated clothing and wash affected area with soap and water. Call a physicianif irritation persists. Wash contaminated clothing prior to re-use.
Inhalation:	Remove person to fresh air. Keep person calm. If not breathing, give artificial respiration. Ifbreathing is difficult give oxygen. Call a physician.
Ingestion:	DO NOT induce vomiting. Contact a physician immediately.
Note to Physicians:	Treat symptomatically. Gastric lavage using a cuffed endotracheal tube may be performed atyour discretion.

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SECTION 5 : FIRE FIGHTING MEASURES 572E

Fire:	Flammable Properties: This product is extremely flammable in accordance with aerosolflammability definitions (16 CFR 1500.3(c)(6)).
Flash Point:	< 0 deg F
Flash Point Method:	TCC
Upper Flammable or Explosive Limit:	9.0
Lower Flammable or Explosive	1.7

Limit:	
Auto Ignition Temperature:	489 deg F
Extinguishing Media:	Suitable: Class B fire extinguishers, dry chemical, foam or CO2
Hazardous Combustion Byproducts:	Fumes, smoke and carbon monoxide
Fire Fighting Instructions:	Protection of Fire-Fighters: Firefighters should wear self-contained, NIOSH-approved breathing apparatus forprotection against suffocation and possible toxic decomposition products. Proper eyeand skin protection should be provided. Use water fog or spray to keep fire-exposedcontainers cool and to knock down vapors which may result from productdecomposition. Do not spray water directly on fire; product will float and could bereignited on surface of water.

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SECTION 6 : ACCIDENTAL RELEASE MEASURES 572E

Personal Precautions:	Use personal protection recommended in Section 8.
Spill Cleanup Measures:	Dike area to contain spill. Remove all sources of ignition. Ventilate the areawith fresh air. If in confined space or limited air circulation area, clean-upworkers should wear appropriate respiratory protection. Recover or absorbspilled material using an absorbent designed for chemical spills. Place usedabsorbents into proper waste containers.
Environmental Precautions:	Take precautions to prevent contamination of ground and surface waters. Do not flushinto sewers or storm drains.

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SECTION 7 : HANDLING and STORAGE 572E

Handling:	Use proper grounding and bonding procedures for transferring materials. Do not use productnear any source of ignition. Do not touch container to electrical sources as container willconduct electricity. Avoid contact with eyes and skin. Avoid breathing vapors.
Storage:	Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120 deg Fto prevent cans from rupturing. Aerosol Storage Level: III

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SECTION 8 : EXPOSURE CONTROLS, PERSONAL PROTECTION 572E

Engineering Controls:	Area should have ventilation to provide fresh air. Use local exhaust to prevent accumulationof vapors. Use mechanical means if necessary to maintain vapor levels below the exposureguidelines. If working in a confined space, follow applicable OSHA regulations
Skin Protection Description:	Use protective gloves such as nitrile, PVC or Viton. Also, use full protective clothing if thereis prolonged or repeated contact of liquid with skin.
Eye/Face Protection:	For normal conditions, wear safety glasses. Where there is reasonable probability of liquidcontact, wear splash-proof goggles.
Respiratory Protection:	None required for normal work where adequate ventilation is provided. Use a NIOSH-approvedcartridge respirator with an organic vapor cartridge if vapors exceed exposurelimits. Use a self-contained breathing apparatus in confined spaces and for emergencies.
Exposure Limits:	COMPONENT: Hexane isomers OTHER TWA: Not Established COMPONENT: n-Hexane OTHER TWA: Not Established COMPONENT: Acrylic copolymer OTHER TWA: Not Established COMPONENT: Molybdenum complex OSHA: TWA: Not Established

STEL: Not Established
ACGIH:
TWA: Not Established
STEL: Not Established
OTHER TWA: Not Established

COMPONENT: Liquefied petroleum gas
OTHER TWA: Not Established

N.E. - Not Established
(c) - ceiling
(s) - skin
(v) - vacated

Ingredient Guidelines

Ingredient: Acrylic copolymer

Guideline Type:	OSHA PEL-TWA
Guideline Information:	Not Established
Guideline Type:	OSHA PEL-STEL
Guideline Information:	Not Established
Guideline Type:	ACGIH TLV-TWA
Guideline Information:	Not Established
Guideline Type:	ACGIH TLV-STEL
Guideline Information:	Not Established

Ingredient: Hexane isomers

Guideline Type:	OSHA PEL-TWA
Guideline Information:	500(v) ppm
Guideline Type:	OSHA PEL-STEL
Guideline Information:	1000(v) ppm
Guideline Type:	ACGIH TLV-TWA
Guideline Information:	500 ppm
Guideline Type:	ACGIH TLV-STEL
Guideline Information:	1000 ppm

Ingredient: Liquefied petroleum gas

Guideline Type:	OSHA PEL-STEL
Guideline Information:	Not Established
Guideline Type:	ACGIH TLV-TWA
Guideline Information:	1000 ppm
Guideline Type:	ACGIH TLV-STEL
Guideline Information:	Not Established
Guideline Type:	OSHA PEL-TWA
Guideline Information:	1000 ppm

Ingredient: n-Hexane

Guideline Type:	ACGIH TLV-STEL
Guideline Information:	Not Established
Guideline Type:	OSHA PEL-TWA
Guideline Information:	500 ppm
Guideline Type:	OSHA PEL-STEL
Guideline Information:	Not Established
Guideline Type:	ACGIH TLV-TWA
Guideline Information:	50(s) ppm

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SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES 572E

Color:	Clear, light amber
Odor:	Mild solvent
	Liquid

Physical State:	
pH:	Not Applicable
Vapor Pressure:	160 mmHg @ 68 deg F
Vapor Density:	> 1 (air = 1)
Boiling Point:	Initial: 140 deg F
Freezing Point:	< -76 deg F
Solubility:	Negligible in water
Specific Gravity:	0.6327
Evaporation Point:	19 (Butyl acetate = 1)
Volatile Organic Compound Content:	wt %: 92.1 g/L: 582.7 lbs./gal: 4.85

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SECTION 10 : STABILITY and REACTIVITY 572E

Chemical Stability:	Stable
Conditions to Avoid:	Sources of ignition, temperature extremes
Incompatibilities with Other Materials:	Strong oxidizers
Hazardous Polymerization:	No
Hazardous Decomposition Products:	Oxides of carbon

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SECTION 11 : TOXICOLOGICAL INFORMATION 572E

Applies to all ingredients:

Chronic Effects:	Long-term toxicological studies have not been conducted for this product.
Carcinogenicity:	OSHA: None listed IARC: None listed NTP: None listed
Mutagenicity:	No information available
Other Toxicological Information:	The following information isavailable for components of this product.

n-Hexane :

Skin Effects:	LD50: 3000 mg/kg Dermal Rabbit
Ingestion Effects:	LD50: 28710 mg/kg Oral Rat
Inhalation Effects:	LC50: 48000 ppm/4H Inhalation Rat

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SECTION 12 : ECOLOGICAL INFORMATION 572E

Ecological Paragraph:	Ecological studies have not been conducted for this product. The following information is available forcomponents of this product.
Ecotoxicity:	n-hexane: 48 Hr EC50 water flea: 3.87 mg/L 96 Hr LC50 Lepomis macrochirus: 4.12 mg/L
Bioaccumulation:	Accumulation: No information available Persistence/Degradability: No information available Mobility in Environment: No information available

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SECTION 13 : DISPOSAL CONSIDERATIONS 572E

Waste Disposal:	Aerosol containers should be emptied and depressurized before disposal. Empty containers may berecycled. Any liquid product should be managed as a hazardous waste.
RCRA Hazard Class:	The dispensed liquid product is a RCRA hazardous waste for the characteristic of ignitability with a wastecode of D001 (See 40 CFR Part 261.20 - 261.33).
	All disposal activities must comply with federal, state and local regulations. Local regulations may be more stringent than state or national requirements.

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SECTION 14 : TRANSPORT INFORMATION 572E

DOT Shipping Name:	US DOT (ground): Consumer Commodity, ORM-D
	Special Provisions: None

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SECTION 15 : REGULATORY INFORMATION 572E

Applies to All Ingredients :

TSCA 8(b): Inventory Status:	All ingredients are either listed on the TSCA inventory or are exempt.
SARA:	Superfund Amendments Reauthorization Act (SARA) Title III:
Section 302:	Section 302 Extremely Hazardous Substances (EHS): None
Section 304:	Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):
	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.
Section 312 Hazard Category:	Section 311/312 Hazard Categories:
Acute:	Yes
Chronic:	Yes
Fire:	Yes
Reactive:	No
Pressure:	Yes
State:	California Safe Drinking Water and Toxic Enforcement Act (Prop 65): This product may contain the following chemicals known to the state of California to cause cancer, birth defects or other reproductive harm: NONE
	State Right to Know: New Jersey: 75-83-2, 79-29-8 Pennsylvania: 107-83-5, 75-83-2, 79-29-8 Massachusetts: 107-83-5, 75-83-2, 79-29-8
Regulatory Paragraph:	Additional Regulatory Information: None

n-Hexane :

Section 304 CERCLA RQ:	5000 lbs
Section 313 Toxic Release Form:	Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372: n-hexane (4.4%)
Section 112(r): Clean Air Act	Section 112 Hazardous Air Pollutants (HAPs): n-hexane
State:	State Right to Know: New Jersey: 110-54-3 Pennsylvania: 110-54-3 Massachusetts: 110-54-3 Rhode Island: 110-54-3

Liquefied petroleum gas :

State: State Right to Know:
New Jersey: 68476-86-8
Pennsylvania: 68476-86-8
Massachusetts: 68476-86-8
Rhode Island: 68476-86-8

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SECTION 16 : ADDITIONAL INFORMATION 572E

HMIS:
- Health Hazard: 2
- Fire Hazard: 3
- Reactivity: 0
- Personal Protection: B

NFPA:
- Health: 2
- Fire Hazard: 3
- Reactivity: 0

MSDS Revision Date: 12/7/2006

Changes since last revision: Formula number revised

MSDS Author: Prepared By: Michelle Rudnick

Disclaimer:

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.

Abbreviations:
CAS: Chemical Abstract Service
ppm: Parts per Million
TCC: Tag Closed Cup
PMCC: Pensky-Martens Closed Cup
PPE: Personal Protection Equipment
TWA: Time Weighted Average
OSHA: Occupational Safety and Health Administration
ACGIH: American Conference of Governmental Industrial Hygienists
NIOSH: National Institute of Occupational Safety & Health
NA: Not Applicable
ND: Not Determined
NE: Not Established
g/L: grams per Liter
lbs./gal: pounds per gallon
STEL: Short Term Exposure Limit

CRC ##: 572E

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1. Chemical Product & Company Identification

Product 3-Mercaptopropionic Acid 99%

Evans Chemetics LP, 228 East Main St. Waterloo, NY 13148
Offices: 33 Wood Ave – South, Iselin, NJ 08830
Customer Information Center: 001 732-635-0100

24-HOUR EMERGENCY PHONE NUMBER: 800-424-9300
International Call: 703-527-3887 (collect calls are accepted)

2. Composition / Information On Ingredients

3-Mercaptopropionic acid	CAS#	107-96-0	99 % Min.
Water	CAS#	7732-18-5	1 % Max.

3. Hazards Identification

EMERGENCY OVERVIEW

White to yellow liquid. Obnoxious, sharp odor. Causes severe eye burns. Causes severe skin burns. Causes burns of the mouth and throat. Aspiration hazard. Can enter lungs and cause damage. Reacts with some metals. Toxic if swallowed.

POTENTIAL HEALTH EFFECTS (See Section 11 for toxicological data.)

EYE:
May cause severe corneal injury which may result in permanent impairment of vision, even blindness.

SKIN:
Brief contact may cause severe skin burns. Symptoms may include pain, severe local redness and tissue damage.

INGESTION:
Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury. Irritation to severe chemical burns of esophageal, gastric and intestinal mucosa with risk of perforation. May cause severe burns of the mouth and throat.

INHALATION:
Vapors may cause irritation of the upper respiratory tract (nose and throat). Depending on concentration, coughing, asthmatic reaction, glottis edema, pulmonary edema. Resorbtion in toxic quantities possible.

CANCER INFORMATION:
Ames test results were negative.

TERATOLOGY (BIRTH DEFECTS):
See section 11 on toxicology.

4. First Aid

EYE:
Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation,

preferably from an ophthalmologist.

SKIN:

Immediate continued and thorough washing in flowing water for at least 30 minutes is imperative while removing contaminated clothing. Prompt medical consultation is essential. Wash clothing before reuse. Destroy contaminated leather items.

INGESTION:

Rinse out mouth and spit out liquid. Do not induce vomiting. Give one cup (8 ounces or 240 ml) of water or milk if available and transport to a medical facility. Do not give anything by mouth to an unconscious person.

INHALATION:

If aerosols are inhaled, risk of absorbtion and thus poisoning. Move person to fresh air; if effects occur, consult a physician.

NOTE TO PHYSICIAN:

Due to irritant properties, swallowing may result in burns/ulceration of mouth, stomach and lower GI tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal/esophageal control if lavage is done. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Resorption through skin in toxic quantity possible.

5. Fire Fighting Measures

FLAMMABLE PROPERTIES

FLASH POINT: 256 ℉
3-mercaptopropionic acid 99%
METHOD USED: DIN EN ISO 2719

AUTOIGNITION TEMPERATURE: 350 ℃

HAZARDOUS COMBUSTION PRODUCTS:

During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds. Hazardous combustion products may include and are not limited to sulfur oxides, hydrogen sulfide, carbon monoxide and carbon dioxide.

OTHER FLAMMABILITY INFORMATION:

Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

EXTINGUISHING MEDIA:

Water fog or fine spray, carbon dioxide, dry chemical, foam. Do not use direct water stream. May spread fire. Alcohol resistant foams (ATC type) are preferred if available. General purpose synthetic foams (including AFFF type) or protein foams may function but much less effectively.

MEDIA TO BE AVOIDED:

Do not use direct water stream.

FIRE FIGHTING INSTRUCTIONS:

Keep people away. Isolate fire area and deny unnecessary entry. Do not use direct water stream. May spread fire. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of re-ignition has passed. Move container from fire area if this is possible

without hazard. Fight fire from protected location or safe distance. Consider use of unmanned hose holder or monitor nozzles. Immediately withdraw all personnel from area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Burning liquids may be extinguished by dilution with water. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this MSDS.

PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS:

Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant clothing with SCBA. This will not provide sufficient fire protection. Consider fighting fire from a remote location. For protective equipment in post-fire or non-fire clean up situations, refer to the relevant sections.

6. Accidental Release Measures

(See Section 15 for Regulatory Information)

PROTECT PEOPLE:

Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls/Personal Protection.

PROTECT THE ENVIRONMENT:

Prevent from entering into soil, ditches, sewers, waterways and or groundwater. See Section 12, Ecological Information.

CLEANUP:

Contain spilled material if possible. Attempt to neutralize by adding materials such as: soda ash, sodium bicarbonate. Absorb with materials such as sand. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations.

7. Handling And Storage

HANDLING:

Do not get in eyes, on skin, on clothing. Wash thoroughly after handling. Do not swallow. Use with adequate ventilation. Keep container closed. See Section 8, Exposure Controls/Personal Protection.

STORAGE:

Store in glass-lined container, Teflon, polyethylene or polypropylene. Do not store in metals or unlined containers. Store away from oxidizing materials. See Section 10, Stability and Reactivity.

8. Exposure Controls/Personal Protection

ENGINEERING CONTROLS:

Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

PERSONAL PROTECTIVE EQUIPMENT:

EYE/FACE PROTECTION:

Use chemical goggles. Wear a face-shield which allows use of chemical goggles, or wear a full-

face respirator, to protect face and eyes when there is any likelihood of splashes. Eye wash fountain should be located in immediate work area.

SKIN PROTECTION:

Use protective clothing impervious to this material. Selection of specific items such as faceshield, gloves, boots, apron or full-body suit will depend on operation. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water and launder clothing before reuse. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and destroyed.

RESPIRATORY PROTECTION:

If respiratory irritation is experienced, use an approved air-purifying respirator.

EXPOSURE GUIDELINES:

None established.

9. Physical And Chemical Properties

APPEARANCE/PHYSICAL STATE:	White to yellow liquid
ODOR:	Obnoxious, sharp
VAPOR PRESSURE:	0.047 mmHg @ 25 ℃ Nom
MELTING POINT:	17 ℃
BOILING POINT:	110.5 - 111.5 ℃ @ 15 mmHg
BOILING POINT:	197 ℃, Decomposes
SOLUBILITY IN WATER/MISCIBILITY:	Soluble
SPECIFIC GRAVITY OR DENSITY:	1.215 - 1.225 Nom @ 20 ℃, DIN 51757 , 3-mercaptopropionic acid 99%
pH:	2.7 Nom, 1% solution
pH:	2.2 (100 g/l) @ 20 ℃, DIN 19268
PARTITION COEFFICIENT (log Pow):	0.43, calculated

10. Stability And Reactivity

CHEMICAL STABILITY:

Stable under recommended storage conditions. See Storage, Section 7. Unstable at elevated temperatures.

CONDITIONS TO AVOID:

Product can oxidize on exposure to air. Avoid temperatures above 248F (120C). Product can decompose at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

INCOMPATIBILITY WITH OTHER MATERIALS:

Avoid contact with oxidizing materials. Reaction with oxidizers can be violent. Corrosive to some metals. Avoid contact with metals such as aluminum, zinc, carbon steel, tin, steel, stainless steel, copper, ferrous metals, nickel, galvanized metals, iron. Contact with common metals can generate flammable hydrogen gas. Avoid unintended contact with acids, alcohols, aldehydes, bases, metal salts. Reaction with acid can generate flammable, toxic hydrogen sulfide.

HAZARDOUS DECOMPOSITION PRODUCTS:

Hazardous decomposition products depend upon temperature, air supply and the presence of other materials. Hazardous decomposition products may include and are not limited to hydrogen sulfide and sulfur oxides. Toxic gases are released during decomposition.

HAZARDOUS POLYMERIZATION:

Will not occur.

11. Toxicological Information

(See Section 3 for Potential Health Effects. For detailed toxicological data, write or call the address or non-emergency number shown in Section 1)

ACUTE ORAL TOXICITY:

LD50:	96 mg/kg
Species:	Rat

ACUTE INHALATION TOXICITY:

LC50:	1.8 mg/l
Species:	Rat
Method:	OECD 403

SKIN IRRITATION:

Result:	Extremely corrosive and destructive to tissue
Method:	2000/33/EC, Annex I B40

EYE IRRITATION:

Result:	Risk of serious damage to eyes
Species:	Rabbit

GENETIC TOXICITY IN VITRO:

Ames Test:	Not mutagenic
Method:	OECD 471
Mammalian cell gene mutation test:	Not mutagenic
Method:	OECD 476
Chromosome aberration test:	No clastogenic activity
Method:	OECD 473

GENERAL REMARKS:

3-Mercaptopropionic acid acts as an convulsant in animal studies.

12. Ecological Information

(For detailed Ecological data,write or call the address or non-emergency number shown in Section 1)

ENVIRONMENTAL FATE

BIODEGRADABILITY:

Result:	96 % Readily biodegradable.
Method:	OECD 301A

BIOACCUMULATION:

Bioconcentration factor (BCF)	1
Method:	calculated

MOVEMENT & PARTITIONING:

The calculated log Pow is 0.43.

ECOTOXICITY:

TOXICITY TO FISH:

LC50	88 mg/l
Species:	Zebra-fish (Brachydanio rerio)
Method:	OECD 203
Test substance:	3-Mercaptopropionic acid 99%
Note:	The result is based on the geometric mean of the concentrations tested.

TOXICITY TO DAPHNIA:

EC50 (48 h):	9 mg/l
Species:	water flea Daphnia magna
Test substance:	3-Mercaptopropionic acid 99%
Note:	The result is based on the geometric mean of the concentrations tested

13. Disposal Considerations

(See Section 15 for Regulatory Information)

DISPOSAL:

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. Evans Chemetics has no control over the management practices or manufacturing processes of parties handling or using this material. The information presented here pertains only to the product as shipped in its intended condition as described in msds section 2 (Composition/Information On Ingredients).

FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: recycler, reclaimer, incinerator or other thermal destruction device.

As a service to its customers, Evans can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums.

14. Transport Information

DEPARTMENT OF TRANSPORTATION (D.O.T.):

For D.O.T. regulatory information, if required, consult transportation regulations, product shipping papers or contact your Evans representative.

CANADIAN TDG INFORMATION:

For TDG regulatory information, if required, consult transportation regulations, product shipping papers or contact your Evans representative.

15. Regulatory Information

(Not meant to be all-inclusive selected regulations represented)

U.S. REGULATIONS

SARA 313 INFORMATION:

To the best of our knowledge, this product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

SARA HAZARD CATEGORY:

This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard.

TOXIC SUBSTANCES CONTROL ACT (TSCA):

All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

STATE RIGHT-TO-KNOW:

This product is not known to contain any substances subject to the disclosure requirements of
New Jersey
Pennsylvania

OSHA HAZARD COMMUNICATION STANDARD:

This product is a Toxic chemical as defined in 29 CFR 1910.1200 App A.

CANADIAN REGULATIONS

WHMIS INFORMATION:

The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is:

D1A - material is toxic with short exposure and low dose
E - corrosive to metal or skin

Refer elsewhere in the MSDS for specific warnings and safe handling information. Refer to the employer's workplace education program.

CPR STATEMENT:

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

COMPONENTS	CAS NUMBER	AMOUNT(%w/w)
3-Mercaptopropionic acid	107-96-0	99 % Min.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):

All substances in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

16. Other Information

HAZARD RATING SYSTEMS:

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

Health	3
Flammability	1
Reactivity	1

17. Disclaimer:

The information presented herein is presented in good faith, but no warranty expressed or implied, is given nor is freedom from any patent owned by the Evans Chemetics LP or by others to be inferred.
Because use conditions and applicable laws may differ from one location to another and may change with time, the Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments.

In the hands of qualified personnel, this chemical is expected to yield results for its intended purpose. Recipients are cautioned to confirm the product suitability by appropriate tests. Anyone wishing to reproduce or publish this material in whole or in part should request written permission from Evans Chemetics LP.

Seller assumes no obligation or liability for the information in this document. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

MATERIAL SAFETY DATA SHEET

MSDS Name: THURMALOX HI BUILD PRIMER
MSDS Number: 225HD
Version Number
MSDS Date: MAY-14-2008
Page Number: 1

SECTION 1. PRODUCT AND COMPANY INFORMATION

Product Name:	THURMALOX HI BUILD PRIMER
CAS Number	N/A
Hazard Rating:	Health: 2 Fire: 3 Reactivity: 0 PPI:
Company Identification:	DAMPNEY CO INC. 85 PARIS ST EVERETT MA 02149-4411
Contact:	CONRAD FOO
Telephone/Fax:	(617) 389-2805 (617) 389-0484
Chemtrec (24 Hour):	(800) 424-9300
Product Class	SILICONE COATING
Trade Name	THURMALOX HI BUILD P
Product Code	225HD
DOT Hazard Class	
UN Number	1263
Shipping Name	
Technical Name	

SECTION 2. INGREDIENT AND HAZARD INFORMATION

Ingredient Name	CAS Number	Percent	TSCA
XYLENE (HAPS)	1330-20-7	10.28	Y
ETHYL BENZENE (HAPS)	100-41-4	8.11	Y
METHYL n-AMYL KETONE	110-43-0	5.91	Y
BUTANOL	71-36-3	2.17	Y
TOLUENE (HAPS)	108-88-3	1.57	Y
CRYSTALLINE SILICA	14808-60-7	0.36	Y

*** ALL Ingredients in this product are listed in the T.S.C.A. Inventory

** SPECIAL REMARKS ON ABOVE LISTED INGREDIENTS **
Technical grade xylene contains 18-20% ethyl benzene CAS # is 100-41-4 and is subject to reporting requirements of SECTION 313 of SARA TITLE III.
ACGIH recommends a TWA of 50 ppm for toluene (skin).

SPECIAL REMARKS SPECIFIC TO THIS RAW MATERIAL
NTP and IARC concludes that crystalline silica, (respirable) may reasonably be anticipated to be a carcinogen. National Institute for Occupational Safety and Health (NIOSH) recommends maximum permissible concentration 0.05 mg/m3 as determined by a full shift sample up to 10 hour working day, 40 hour work week.
NTP concludes that silica, crystalline (respirable) may be anticipated to be a carcinogen, IARC CLASS 2A.

SECTION 3. PHYSICAL DATA

Form:	LIQUID
Appearance/Color:	GRAY
pH Value:	Not Applicable
Boiling Range:	230.°F - 305.6°F
Melting Point:	Not Applicable
Evaporation Rate:	0.168 times Slower than n-Butyl Acetate
Vapor Density:	Heavier than air
Partition Coefficient	Not Available
% Volatile Weight	20.3%
% Volatile	40.1%
Specific Gravity:	1.72839
Weight/Gallon:	13.94 lbs
VOC	3.44 LBS/GAL
Heavy Elements (ppm)	0.

SECTION 4. FIRE AND EXPLOSION HAZARD DATA

Flammability Class	1B
Flash Range:	48.°F - 102.2°F
Explosive Range:	1.1%

11.2%

EXTINGUISHING MEDIA:
Foam, alcohol foam, CO2, dry chemical, water fog may be ineffective but should be used to cool fire-exposed containers to prevent pressure build up and possible auto-ignition or explosion when exposed to extreme heat.

SPECIAL FIREFIGHTING PROCEDURES:
Use full protection equipment including self contained breathing apparatus(NIOSH approved) for respiratory protection in fighting fires in enclosed or confined spaces, or as otherwise needed. Minimize breathing gases, vapors, fumes or decomposition products.

UNUSUAL FIRE & EXPLOSION HAZARDS:
During emergency conditions, overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

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SECTION 5. HEALTH HAZARD DATA

Route	Species	Exposure and Dose
XYLENE (HAPS)		
Inhalation	Unknown	LC50 26800. PPM
Oral	Unknown	LD50 4300. mg/kg
Skin	Unknown	LD50 2000. mg/kg
METHYL n-AMYL KETONE		
Inhalation	Rat	LC50 4000. PPM
Oral	Rat	LD50 1600. mg/kg
Skin	Rabbit	LD50 10206. mg/kg
BUTANOL		
Inhalation	Rat	LD50 4 HOURS 8000. PPM
Oral	Rat	LD50 2500. mg/kg
Oral	Rabbit	LD50 3400. mg/kg
Skin	Rabbit	LD50 5300. mg/kg
TOLUENE (HAPS)		
Inhalation	Unknown	LD50 8000. PPM
Oral	Unknown	LD50 5. PPM
Skin	Unknown	LD50 14. PPM

MATERIAL SAFETY DATA SHEET

MSDS Name: THURMALOX HI BUILD PRIMER
MSDS Number: 225HD
Version Number
MSDS Date: MAY-14-2008

PERMISSIBLE EXPOSURE LEVEL:
SEE SECTION VIII
SEE SECTION VIII

EFFECTS OF OVEREXPOSURE:
Primary route(s) of entry:
(X) Dermal (X) Inhalation ( ) Ingestion

Acute (short term) exposure:
Inhalation - excessive inhalation of vapors can cause nasal and respiratory irritation, cns effects including dizziness, weakness, nausea, headache, possible unconsciousness, and even death.
Skin contact - prolonged or repeated contact can cause moderate irritation, defatting, and dermatitis.
Eye contact - can cause severe irritation, redness, tearing, and blurred vision.
Ingestion - can cause gastrointestinal irritation, nausea, vomiting, and diarrhea. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.

Pulmonary functions may be reduced by inhalation of respirable crystalline silica. Lung scarring produced by such inhalation may lead to progressive massive fibrosis of the lung which may aggravate other pulmonary conditions and diseases and which increased susceptibility to pulmonary tuberculosis. Progressive massive fibrosis may be accompanied by right heart enlargement, heart failure, and pulmonary failure. Smoking aggravates the effects of exposure.

Damage to humans: chronic overexposure of Butanol may aggravate pre-existing disorders, affect the hearing, anemia. Overexposure to Butanol has been found to cause the following effects in laboratory animals: anemia, liver abnormalities, kidney damage, eye and lung damage.

Butanol has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. the relevance of the findings to humans is uncertain.

EMERGENCY AND FIRST AID PROCEDURES:
Eyes - flush thoroughly with running water for 15 minutes, including under eyelids. Get medical attention.
Skin - promptly remove contaminated clothing and wash affected areas thoroughly with soap and water. If irritation occurs get medical attention. Wash contaminated clothing thoroughly before re-use.

Inhalation - if overcome by vapor, remove to an area free from risk of further exposure. If breathing is difficult, administer oxygen, or artificial respiration if breathing has stopped. Keep person warm and quiet and get medical attention.

Ingestion - if swallowed, call a physician immediately. Only induce vomiting at the instructions of a physician. Never give anything by mouth to an unconscious person. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:

Pre-existing eye, skin, liver and/or kidney disorders may be aggravated by exposure to this product.

Chronic (long term) exposure:

In laboratory animals - overexposure to this material (or its components) has been found to cause the following effects; anemia, liver abnormalities, kidney, lung and spleen damage.

In humans - liver and cardiac abnormalities.

Acute and chronic prolonged exposure to respirable crystalline quartz may cause delayed lung injury, (silicosis). Silicosis is a form of disabling pulmonary fibrosis which can be progressive and may lead to death.

Toluene may be harmful to the fetus based on laboratory animal studies. Repeated exposure to toluene has been associated with high frequency hearing loss based on evidence in laboratory animals. The human health consequences of this finding is uncertain.

Chronic overexposure to xylene has been suggested to cause cardiac abnormality in humans.

SECTION 6. STABILITY AND REACTIVITY MEASURES

Stability:	This product is stable
Hazardous Polymerization:	Hazardous polymerization will not occur

INCOMPATIBILITY:

Avoid contact with strong oxidizing agents, acids or bases.

CONDITIONS TO AVOID:

Avoid heat, open flames.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon monoxide and unidentified organics may be formed.

SECTION 7. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Before attempting cleanup, refer to hazard caution information in other sections of this sheet. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Large spills - notify safety personnel. Eliminate potential sources of ignition. Wear appropriate respirator and protective clothing. Soak up with an absorbent, I.E. sand, clay, or other suitable material. Place in non-leaking containers and seal tightly for proper disposal. Ventilate confined spaces.

Minimize breathing vapors. Open all windows and doors. Minimize skin contact. Keep product out of sewers and water courses by diking and impounding. Observer precautions for volatile, combustible vapors from absorbed material.

Small spills - take up with absorbent material and place in non-leaking containers for proper disposal.

Use dustless methods (vacuum), or flush with water. Do not dry sweep.

WASTE DISPOSAL METHOD:

Assure conformity with applicable federal, state and local regulations.

Dispose in accordance with Federal, State and Local Regulations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

	ACGIH TLV	ACGIH TLV-C	ACGIH STEL	OSHA STEL	OSHA PEL
XYLENE (HAPS)	100.00 PPM	N/est	150.00 PPM	150.00 PPM	100.00 PPM
ETHYL BENZENE (HAPS)	100.00 PPM	N/est	125.00 PPM	125.00 PPM	100.00 PPM
METHYL n-AMYL KETONE	50.00 PPM	N/est	N/est	N/est	100.00 PPM

BUTANOL	50.00 PPM	N/est	N/est	N/est	50.00 PPM
TOLUENE (HAPS)	50.00 PPM	N/est	100.00 PPM	100.00 PPM	100.00 PPM
CRYSTALLINE SILICA	0.10 mg/M3	N/est	0.05 mg/M3	0.05 mg/M3	0.10 mg/M3

RESPIRATORY PROTECTION:

Use NIOSH approved respirator as required to prevent overexposure.
Unconfined spaces - use a vapor/particulate respirator such as NIOSH approved No. TC-23C.
Confined spaces - use a constant flow air-line respirator such as NIOSH approved NO. TC-19C.
Up to 5 X PEL any dust respirator
Up to 10 X PEL any fume respirator or efficiency particulate filter respirator.
Up to 50 X PEL a high efficiency particulate filter respirator with full facepiece. Any air supplied respirator with full facepiece helmet or hood.
Up to 500 X PEL a powered air purifying respirator with a high efficiency particulate filter.
> than 500 X PEL a self contained breathing apparatus with a full facepiece operated in pressure demand or other positive pressure mode.

VENTILATION:
Provide sufficient ventilation to keep air contaminant concentration below current applicable OSHA permissible exposure limit or ACGIH's TLV limit.
No smoking or open lights.

PROTECTIVE GLOVES:
Use chemical-resistant gloves to prevent skin contact.

EYE PROTECTION:
Use chemical splash goggles or face shield to prevent eye contact.
Wear protective safety glasses when exposed to dust particles.

OTHER PROTECTIVE EQUIPMENT:
Use chemical-resistant or other protective outerwear to protect against clothing contamination and skin contact.

SECTION 9. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING, TRANSPORTATION, AND STORING:

CAUTION! FLAMMABLE! Handling and storage conditions must be suitable for OSHA CLASS I flammable liquid. Store in cool, well-ventilated, fire resistant storage area. Protect containers against physical damage. Keep away from heat, flame, and strong oxidizing agents. Do not store above 100 degrees F. Use only with adequate ventilation. Keep containers closed when not in use. Do not breathe vapor or mist. Avoid contact with eyes, skin and clothing. Do not take internally. Bond and ground containers of this material when pouring to avoid static sparks which create a fire hazard.

OTHER PRECAUTIONS:

Contact lenses pose a special hazard; soft lenses may absorb and all lenses concentrate irritants.

SECTION 10. REGULATORY INFORMATION

SARA TITLE III SECTION 313:
This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act of 1986 and of 40 CFR 372:

Ingredient Name	CAS Number	Percent
XYLENE (HAPS)	1330-20-7	10.28
ETHYL BENZENE (HAPS)	100-41-4	8.11
BUTANOL	71-36-3	2.17
TOLUENE (HAPS)	108-88-3	1.57

-PROP 65 (CARCINOGEN)

WARNING: this product contains a chemical known to the state of California to cause cancer.

Ingredient Name	CAS Number	Percent
ETHYL BENZENE (HAPS)	100-41-4	8.11
CRYSTALLINE SILICA	14808-60-7	0.36

-PROP 65 (BOTH CARCINOGEN AND TERATOGEN)
WARNING: This product may contain a chemical known to the state of California to cause cancer and birth defects, or other reproductive harm.

Ingredient Name	CAS Number	Percent
TOLUENE (HAPS)	108-88-3	1.57

==========

The information and recommendations contained herein are based on data believed to be correct. However, Dampney makes no warranty express or implied regarding the accuracy of these data or results to be obtained from the use thereof. Dampney assumes no responsibility for personal injury or property damaged caused by use of the material described herein. It is the responsibility of the purchaser or user to ensure that this material is properly and safely used.

MATERIAL SAFETY DATA SHEET

MSDS Name: 225HD PART B
MSDS Number: 2252
Version Number
MSDS Date: FEB-12-2009
Page Number: 1

SECTION 1. PRODUCT AND COMPANY INFORMATION

Product Name:	225HD PART B
CAS Number	N/A
Hazard Rating:	Health: 2 Fire: 3 Reactivity: 0 PPI:
Company Identification:	DAMPNEY CO INC. 85 PARIS ST EVERETT MA 02149-4411
Contact:	CONRAD FOO
Telephone/Fax:	(617) 389-2805 (617) 389-0484
Chemtrec (24 Hour):	(800) 424-9300
Product Class	CATALYST
Trade Name	225HD PART B
Product Code	2252
DOT Hazard Class	
UN Number	1263
Shipping Name	
Technical Name	

SECTION 2. INGREDIENT AND HAZARD INFORMATION

Ingredient Name	CAS Number	Percent	TSCA
BUTANOL	71-36-3	20.73	Y

*** ALL Ingredients in this product are listed in the T.S.C.A. Inventory

SECTION 3. PHYSICAL DATA

Form:	LIQUID
Appearance/Color:	CLEAR
Odor:	ALCOHOLIC
pH Value:	Not Applicable
Boiling Range:	Not Available

Melting Point:	Not Applicable
Evaporation Rate:	0.095 times Slower than n-Butyl Acetate
Vapor Density:	Heavier than air
Partition Coefficient	Not Available
% Volatile Weight	20.7%
% Volatile	24.8%
Specific Gravity:	0.9677
Weight/Gallon:	8.01LBS/GL
VOC	1.67 LBS/GAL
Heavy Elements (ppm)	0.

SECTION 4. FIRE AND EXPLOSION HAZARD DATA

Flammability Class	1C
Flash Range:	99.°F
Explosive Range:	1.4%
	11.2%

EXTINGUISHING MEDIA:
Foam, alcohol foam, CO2, dry chemical, water fog may be ineffective but should be used to cool fire-exposed containers to prevent pressure build up and possible auto-ignition or explosion when exposed to extreme heat.

SPECIAL FIREFIGHTING PROCEDURES:
Use full protection equipment including self contained breathing apparatus(NIOSH approved) for respiratory protection in fighting fires in enclosed or confined spaces, or as otherwise needed. Minimize breathing gases, vapors, fumes or decomposition products.

UNUSUAL FIRE & EXPLOSION HAZARDS:
During emergency conditions, overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SECTION 5. HEALTH HAZARD DATA

Route	Species	Exposure and Dose

BUTANOL

Inhalation	Rat	LD50 4 HOURS 8000. PPM
Oral	Rat	LD50 2500. mg/kg
Oral	Rabbit	LD50 3400. mg/kg
Skin	Rabbit	LD50 5300. mg/kg

PERMISSIBLE EXPOSURE LEVEL:
SEE SECTION VIII
EFFECTS OF OVEREXPOSURE:
Primary route(s) of entry:
(X) Dermal (X) Inhalation ( ) Ingestion
Acute (short term) exposure:
Inhalation - excessive inhalation of vapors can cause nasal and respiratory irritation, cns effects including dizziness, weakness, nausea, headache, possible unconsciousness, and even death.
Skin contact - prolonged or repeated contact can cause moderate irritation, defatting, and dermatitis.
Eye contact - can cause severe irritation, redness, tearing, and blurred vision.
Ingestion - can cause gastrointestinal irritation, nausea, vomiting, and diarrhea. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.
Damage to humans: chronic overexposure of Butanol may aggravate pre-existing disorders, affect the hearing, anemia. Overexposure to Butanol has been found to cause the following effects in laboratory animals: anemia, liver abnormalities, kidney damage, eye and lung damage.
Butanol has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. the relevance of the findings to humans is uncertain.
EMERGENCY AND FIRST AID PROCEDURES:
Eyes - flush thoroughly with running water for 15 minutes, including under eyelids. Get medical attention.
Skin - promptly remove contaminated clothing and wash affected areas thoroughly with soap and water. If irritation occurs get medical attention. Wash contaminated clothing thoroughly before re-use.
Inhalation - if overcome by vapor, remove to an area free from risk of further exposure. If breathing is difficult, administer oxygen, or artificial respiration if breathing has stopped. Keep person warm and quiet and get medical

attention.
Ingestion - if swallowed, call a physician immediately. Only induce vomiting at the instructions of a physician. Never give anything by mouth to an unconscious person. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:
Pre-existing eye, skin, liver and/or kidney disorders may be aggravated by exposure to this product.
Chronic (long term) exposure:
In laboratory animals - overexposure to this material (or its components) has been found to cause the following effects; anemia, liver abnormalities, kidney, lung and spleen damage.
In humans - liver and cardiac abnormalities.

SECTION 6. STABILITY AND REACTIVITY MEASURES

Stability:	This product is stable
Hazardous Polymerization:	Hazardous polymerization will not occur

INCOMPATIBILITY:
Avoid contact with strong oxidizing agents, acids or bases.
CONDITIONS TO AVOID:
Avoid heat, open flames.
HAZARDOUS DECOMPOSITION PRODUCTS:
Carbon monoxide and unidentified organics may be formed.

SECTION 7. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Before attempting cleanup, refer to hazard caution information in other sections of this sheet. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
Large spills - notify safety personnel. Eliminate potential sources of ignition. Wear appropriate respirator and protective clothing. Soak up with an absorbent, I.E. sand, clay, or other suitable material. Place in non-leaking containers and seal tightly for proper disposal. Ventilate confined spaces.

Minimize breathing vapors. Open all windows and doors. Minimize skin contact. Keep product out of sewers and water courses by diking and impounding. Observer precautions for volatile, combustible vapors from absorbed material.
Small spills - take up with absorbent material and place in non-leaking containers for proper disposal.

WASTE DISPOSAL METHOD:
Assure conformity with applicable federal, state and local regulations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

	ACGIH TLV	ACGIH TLV-C	ACGIH STEL	OSHA STEL	OSHA PEL
BUTANOL	50.00 PPM	N/est	N/est	N/est	50.00 PPM

RESPIRATORY PROTECTION:
Use NIOSH approved respirator as required to prevent overexposure.
Unconfined spaces - use a vapor/particulate respirator such as NIOSH approved No. TC-23C.
Confined spaces - use a constant flow air-line respirator such as NIOSH approved NO. TC-19C.

VENTILATION:
Provide sufficient ventilation to keep air contaminant concentration below current applicable OSHA permissible exposure limit or ACGIH's TLV limit.
No smoking or open lights.

PROTECTIVE GLOVES:
Use chemical-resistant gloves to prevent skin contact.

EYE PROTECTION:
Use chemical splash goggles or face shield to prevent eye contact.

OTHER PROTECTIVE EQUIPMENT:
Use chemical-resistant or other protective outerwear to protect against clothing contamination and skin contact.

SECTION 9. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING, TRANSPORTATION, AND STORING:

CAUTION! FLAMMABLE! Handling and storage conditions must be suitable for OSHA CLASS I flammable liquid. Store in cool, well-ventilated, fire resistant storage area. Protect containers against physical damage. Keep away from heat, flame, and strong oxidizing agents. Do not store above 100 degrees F. Use only with adequate ventilation. Keep containers closed when not in use. Do not breathe vapor or mist. Avoid contact with eyes, skin and clothing. Do not take internally. Bond and ground containers of this material when pouring to avoid static sparks which create a fire hazard.

OTHER PRECAUTIONS:

Contact lenses pose a special hazard; soft lenses may absorb and all lenses concentrate irritants.

SECTION 10. REGULATORY INFORMATION

SARA TITLE III SECTION 313:
This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act of 1986 and of 40 CFR 372:

Ingredient Name	CAS Number	Percent
BUTANOL	71-36-3	20.73

The information and recommendations contained herein are based on data believed to be correct. However, Dampney makes no warranty express or implied regarding the accuracy of these data or results to be obtained from the use thereof. Dampney assumes no responsibility for personal injury or property damaged caused by use of the material described herein. It is the responsibility of the purchaser or user to ensure that this material is properly and safely used.

Material Safety Data Sheet

Product: Stainless Steel Tubing & Pipe- Austenitic

1. COMPONENT DATA

Material	% by Weight	CAS #	OSHA – PEL TWA	ACGIH TLV
Iron	67-89	7439-89-6	10	5
Chromium*	10-27	7440-47-3	1	0.5
Nickel*	0-22	7440-02-0	1	1
Manganese*	0-2	7439-96-5	C5	C5 (dust & compound) 1 (Fume) 3 (Fume) STEL
Molybdenum	0-4	7439-98-7	10 (Total Dust) 5 (Respirable Fraction)	10
Copper*	0-4	7440-50-8	0.1 (Fume) 1 (Dust)	0.2 (Fume) 1 (Dust)
Silicon	0-2	7440-21-3	10 (Total Dust) 5 (Respirable Fraction)	10
Cobalt*	0-1	7440-48-7	0.05	0.05
Titanium	0-1	13463-67-7	10 (Total Dust) 5 (Respirable Fraction)	10 (Total Nuisance Dust)

% by Weight - Component % Varies by Grade
C - Ceiling limit not to be exceeded
* - Denotes SARA Title III, Section 313 toxic chemical
STEL - Short Term Exposure Limit

2. PHYSICAL DATA

Gray Solid with metallic luster, odorless	Boiling Point: N/A
Melting range: 2,600-2,800°F	Solubility in Water: N/A
Specific Gravity: ≈ 8	Vapor Pressure: N/A
Vapor Density: N/A	pH: N/A
Evaporation Rate: N/A	

3. FIRE & EXPLOSION DATA

Flash Point: N/A

Extinguishing Media: N/A

4. REACTIVITY DATA

- Stability : Stable
- Conditions to avoid: N/A
- Incompatibility: Reacts with strong acids to form hydrogen gas
- Hazardous Polymerization: Will not occur

- Hazardous Decomposition Products: Metal fumes; Iron oxide, manganese, chromium, molybdenum, titanium dioxide and cobalt when burning or welding may occur.

5. HEALTH HAZARD DATA

Primary routes of exposure: Inhalation: Yes (Fumes from welding or burning, dusts from grinding or cutting)

Skin: No Ingestion: No Other: Eyes

HEALTH HAZARDS (ACUTE and CHRONIC)

ACUTE: Excessive; inhalation of metallic fumes and dusts may be to respiratory passages. Excessive inhalation of fumes from many metals can produce an acute reaction known as "metal fume fever" Symptoms consist of chills and fever (very similar to and easily confused with flu symptoms), a metallic taste in the mouth, dryness and irritation of the throat. The symptoms come on a few hours after excessive exposures and usually last from 12 to 48 hours. Long term effects from metal fever have not been noted. Iron oxide, manganese, and copper have been associated with causing metal fume fever.

High concentrations of metallic fumes and dusts can result in irritation of the eyes, skin, mucous membranes, and other forms of physical

CHRONIC: Chronic inhalation of high concentrations of metal fumes and dusts are associated with the following conditions:

Iron oxide:
Chronic inhalation of excessive concentrations of iron oxide fumes and dusts may result in development of a benign pneumoconiosis, called siderosis, which is observable as an X-ray change. No physical impairment of lung function has been associated with siderosis. Inhalation of excessive concentrations of ferric oxide may enhance the risk of lung cancer development in workers exposed to pulmonary carcinogens.

Manganese:
Chronic exposure to high concentrations of manganese fumes and dusts may increase the incidence of pneumonia and lung damage and may adversely affect the central nervous system with symptoms including languor, sleepiness, emotional disturbances, spastic gait, mask-like facial expression and, paralysis. Animal studies indicate that manganese exposure may increase susceptibility to bacterial and viral infections.

Nickel:
Nickel fumes are respiratory irritants and may cause pneumonitis. Skin contact may cause an allergic skin rash. Nickel itch is the dermatitis resulting from sensitization to nickel; the first symptom is usually itching, which occurs up to 7 days before skin eruption occurs. The primary skin eruption is erythematous, or follicular, which

may be followed by skin ulceration. Nickel sensitivity, once acquired, is apparently not lost. All airborne nickel-contaminating dusts are regarded as carcinogens via inhalation.

Chromium:
The health hazards associated with exposure to chromium are dependent on its oxidation state. The metal form (chromium as it exists in this product) is of very low toxicity. The hexavalent form is very toxic. Adverse effects of the hexavalent form on the skin may include ulcerations, dermatitis and allergic skin reactions. Inhalation of hexavalent chromium compounds can result in ulceration and perforation of the mucous membranes of the nasal septum, irritation of the pharynx and larynx, asthmatic bronchitis, bronchospasms, and edema. Respiratory symptoms may include coughing and wheezing, shortness of breath and nasal itch. Eye irritation or inflammation may also result. The international Agency for Research on Cancer (IARC) lists hexavalent chromium compounds as known human carcinogens. The American Conference of Governmental Industrial Hygienists (ACGIH) has reviewed the toxicity data and concluded that chromium metal is not carcinogenic to humans.

Titanium Dioxide:
Titanium dioxide dust is a mild pulmonary irritant, eye and skin irritant and may be a potential carcinogen. Laboratory animals (rats) exposed to Titanium dioxide developed small focal areas of emphysema, which were attributable to large deposits of dust. Excessive exposure is humans may result in slight changes in the lungs. The dusts of titanium dioxide can be placed in the nuisance category.

Cobalt:
Inhalation of cobalt metal fumes and dust causes irritation of the nose and throat. Cobalt dust may cause an asthma-like disease with symptoms ranging from cough, shortness of breath and dyspnea to decreased pulmonary function, nodular fibrosis, permanent disability and death. Exposure to cobalt may cause weight loss, dermatitis and respiratory hypersensitivity. Although, cobalt is not listed by IARC, NPT or OSHA as a carcinogen, some data suggests that cobalt is an experimental carcinogen in laboratory animals.

Silicon:
Elementary silicon is an inert material that appears to lack the properties of causing fibrosis in the lung tissue. However, slight pulmonary lesions have been reported in laboratory animals from intratracheal injections of silicon dust. Silicon dust has little adverse affect on lungs and does not appear to produce significant organic disease or toxic effects when exposures are kept under the TLV. Silicon may cause chronic respiratory effects.

Molybdenum:
Molybdenum is not foreseen as a hazard in the present context. Though molybdenum has causes toxicity (anemia and poor growth) in farm animals, here is not data documenting toxicity to humans due to industrial exposure; however, molybdenum may cause lung disease and irritation.

Copper:
Industrial exposure to copper fumes, dusts or mists results in metal fume fever with atrophic changes in nasal mucous membranes. Chronic poisoning results in Wilson's disease characterized by hepic cirrhosis, brain damage, demyelination, renal disease and copper deposition in the cornea.

Stainless Steel as a mixture has not been determined to be carcinogenic. However, as listed in the above text individual components have been associated with carcinogenicity.

Stainless Steel:
NPT listed: No IARC Monographs: No OSHA listed: No.

6. EMERGENCY AND FIRST AID PROCEDURES

Inhalation: If acute overexposure to fumes occurs, remove victim from the adverse environment immediately and seek medical attention.

Skin: If irritation develops, remove contaminated clothing immediately, and wash contaminated skin with soap or mild detergent and water for five minutes. Seek medical attention if necessary.

Eyes: In case of contact, immediately wash eyes with large amounts of water for fifteen minutes, occasionally lifting the lower and upper lids. Seek medical attention if necessary.

Ingestion: Seek medical attention if necessary.

7. SPECIAL PROTECTION INFORMATION

Ventilation: Ventilation, as described in the Industrial Ventilation Manual produced by the American Conference of Governmental Industrial Hygienists, shall- be provided in areas where exposures are above the permissible exposure limits or threshold limit values (TLV) specified by OSHA or other local, state, and federal regulation.

Respiratory Protection: A property fitted, NIOSH-approved, dust-fume respirator should be worn during welding, burning, grinding or cutting whenever dust or fumes exceed the Threshold Limit Value (TLV) or other recommended limits, in accordance with OSHA Respiratory Protection Standard (29 CFR 1910.134).

Eye Protection: Use appropriate clothing, such as welder's aprons and gloves when welding or burning.

8. SPILL, LEAK, INFORMATION

Spill or Leak Procedures: N/A
Waste Disposal Method: According to local, state, federal- regulations.

9. SPECIAL PRECAUTIONS/ADDITIONAL INFORMATION

Precautions to be taken for handing and Storage: None

DOT Information:

Hazardous Material Proper Shipping Name – N/A
Identification Number – N/A

Hazard Class – N/A
EPA Hazardous Waste Number – N/A

Additional Information: During welding, precautions should be taken for hat may originate from the welding process or from components of the welding rod. Of special concern are silica or silicates, or both; fluorides, manganese, carbon monoxide, and nitrogen oxides. Arc and sparks generated when welding with product could be a source of ignition for combustible and flammable materials.

NOTE: While the information and recommendations set forth on this data sheet are believed to be accurate as of the present date, Rath Manufacturing, Inc. makes no warranty with respect thereto and disc'-aims all liability from reliance thereon.