

Section 1 – PRODUCT AND COMPANY INFORMATION

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		Office Phone	440-543-1615
		Prepared by	Product Safety Advisor
		Prepared/Revised	November 27, 2006
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Item Number	Size
126879	1 gallon
133087	4 ounces

Product use Boron based fluid engineered as a mold release for a very high temperature, for very high pressure, for very thin clearances, for controlling wear on mold surfaces (especially with abrasive polymers), and for where a thin application is necessary to lubricate.

Hazardous Material Information System

Health 1	Flammability 0	Reactivity 0	Protection X
0 Normal use Material	0 Will Not Burn	0 Stable	X = Consult the
1 Slight Hazard (temporary)	1 Possible to Burn	1 Unstable if Heated	MSDS and
2 Health Affected (lengthy)	2 Burns if Heated	2 Violent Chemical Change	your supervisor
3 Extreme Danger	3 Easily Burns	3 Shock and Heat Sensitive	for your special
4 Severe or Fatal	4 Very Easily Burns	4 May Explode	workplace need
* Chronic (Accumulates)			

NOTE The HMIS may not be enough hazard information for this chemical in all workplaces. The HMIS system requires employee training about the system and about information in this MSDS.

Section 2 – INGREDIENTS INFORMATION

#	Chemical/Common Name	CAS-Number	%	PEL-OSHA	TLV-ACGIH
1	Liquefied Di-hydrogen Oxide	7732-18-5	65 to 85	(1)	(1)
2	Boron compound	Proprietary	5 to 15	5 mg/m ³ (2)	10 mg/m ³ (4)
3	Aluminum compound (5)	Proprietary	0.1 to 10	5 mg/m ³ (2)	3 mg/m ³ (3)
4	Modified Bentonite clay	68953-58-2	0.1 to 10	5 mg/m ³ (2)	3 mg/m ³ (3)

(1) Not Established

(2) As respirable nuisance dust (would be 15 mg/m³ if measuring total dust).

(3) As respirable nuisance dust (would be 10 mg/m³ if measuring total dust).

(4) Total dust

(5) This component is not subject to SARA Title III Sec. 313 reporting requirements in this form. It is suspended in a liquid (not a loose powder), and is not fibrous.

Section 3 – HAZARDS IDENTIFICATION

Slippery; can cause falls if walked on. The paint is mildly corrosive to the eyes on contact. Inhalation of paint mist or fumes evolved upon first heating of coating to 1112° F (600° C) may be irritating to respiratory tract.

EMERGENCY OVERVIEW Product is an odorless white liquid. May cause mechanical eye, skin, and respiratory tract irritation. For large spills, wear appropriate personal protective equipment. Dike to prevent spread of release. Collect released product with a vacuum system or by absorption with a sorbent designed for water-based materials.

CAUTION From spills or overspray, product is not easy to cleanup entirely. It will not harm surfaces, but the surface will be very slippery until it is "worn off" over time. This could cause an unsafe walking surface, even after normal cleanup. The very fine particle size will easily sink into any pore of even the smoothest surface. To use safely, prevent overspray and prepare to control and prevent spills.

NIOSH/MSHA approved respirator, goggles, rubber gloves, and protective clothing. Keep containers closed to avoid contamination from airborne dust and moisture.

Handling Wash after handling, and before eating, drinking, or using tobacco products.

Maintenance Precautions Do not remove or deface label. Keep container closed.

Other Precautions Decomposition vapor is heavier than air and can collect in low areas.

Section 8 – EXPOSURE CONTROLS – PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide ventilation to maintain exposures below the TLV/PEL.

Ventilation Usually local exhaust is not specifically required. General room ventilation may be adequate to maintain components below TLV/PEL, if handled at ambient temperatures, or in covered equipment. Local exhaust ventilation or other engineering controls may be required, if ambient temperatures are exceeded, or if used in operations that may produce mist, aerosol, or vapor.

Respiratory Protection Generally not required if ventilation is provided. If exposures exceed limits by less than a factor of ten, use as a minimum, a NIOSH approved, 1/2 facepiece respirator equipped with cartridges approved for particulate matter with an exposure limit of not less than 5 mg/M³. If exposures exceed 10 times the recommended limits, consult a professional industrial hygienist or your respiratory protective equipment supplier for selection of the proper equipment. If the exposure limits of the product or any of its components are exceeded, an organic vapor mask should be used.

Protective Gloves Polymeric gloves are recommended to prevent possible irritation. Neoprene is a material for personal protective equipment, gloves and clothing. Wear at least water-resistant gloves where prolonged or repeated contact with the spray mist or deposited product is likely.

Other Protective Equipment If contact with the spray is likely, eye protection is recommended. Chemical Monogoggles, or safety glasses with side shields and a face shield will provide protection in most situations.

GENERAL: Polymeric coated apron or other body covering is recommended where there is a possibility of regular work clothing becoming contaminated with the product. All soiled or dirty clothing and personal protective equipment should be thoroughly cleaned before reuse.

Other Engineering Controls Eye bath and safety shower station should be available.

Work Practices Do not use in confined space. Avoid long-term or repeated contact. Stained clothing should be removed and laundered before re-use. Sudden release of hot vapor or mist from process equipment operating at elevated temperature and pressure, or sudden ingress of air into hot equipment under vacuum, may result in decomposition without obvious source of heat. Any use of this product in elevated-temperature processes must be thoroughly evaluated to establish and maintain safe operating conditions.

Hygienic Practices As with using any chemical product, avoid contact with skin and avoid breathing vapors, do not eat, drink, or smoke in work area; wash hands prior to eating, drinking or using restroom after handling or using. Any metal product can contaminate tobacco, causing flu-like sickness (from inhaling components heated in tobacco smoke or ingested from handling tobacco and/or food products).

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point	212° F	Specific Gravity (Water=1)	1.24
Vapor Pressure at 68° F (20° C).....	17 mm	Percent Volatile by Volume (%)	65 - 85
Vapor Density (Air=1)	< 1	Evaporation Rate (ether=1)	Slower
VOC.....	NONE	Pour point.....	ND
Solubility in Water.....	65 - 85%	pH.....	ND
Melting point	32° F	Odor threshold	NONE
Viscosity	950-1150 cSt		

Appearance and Odor Information White slurry paint, odorless.

Section 10 – STABILITY AND REACTIVITY

Incompatibility (reactivity, materials to avoid) Strong oxidizers, strong caustics, strong alkalies, and alcohols.
Product Chemically Stable? Yes
Conditions to keep Stability Prevent exposure to hot surfaces that can cause thermal decomposition.
Decomposition Products Upon initial heating to 1112° F (600° C) will yield very small amounts of nitric oxide fumes. Product is stable to 3000° F (1649° C) after evaporation of the water solvent. Higher temperature will produce unknown decomposition products.
Will Hazardous Polymerization Occur? Product is stable. Hazardous polymerization will not occur.

Section 11 – TOXICOLOGICAL INFORMATION

COMPONENT # COMMENTS
1, 2, 3, 4The bentonite clay contains 0.7% silica, but the nuisance dust PEL is more controlling as having a lower exposure limit.
LD₅₀, LC₅₀ NA
Reproductive Toxicity NA
Irritancy, sensitivity Soluble boron compounds are known to have a toxic effect on the central nervous system at high exposure levels. The boron compounds present in the product are not soluble. Bentonite clays have a very low order of acute toxicity. Aluminum compound has a very low order of toxicity with no serious adverse effects being observed until exposures are well in excess of currently mandated or recommended exposure limits.

Section 12 – ECOLOGICAL INFORMATION

COMPONENT # COMMENTS
1, 2, 3, 4The components of the product are inert. The product is not expected to present an environmental hazard. No ecological or environmental effects known

Section 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Methods The dried paint generally does not exhibit any characteristics of a hazardous waste. Give empty, leaking, or full, containers to a disposal service equipped to handle such residue containers – containers may be hazardous since they retain residues, – observe all warnings and precautions listed for the product. As prepared, product is considered non-hazardous. Observe proper safety and handling precautions. Do not allow empty containers to be used for any purpose except to store and ship original product. Recovered liquids may be re-used if compatible with users processes. Contaminated material must be disposed of in a permitted waste management facility suitable for the contamination. Do not puncture or burn containers. Reclamation/recycling is encouraged where possible. Where reclamation is not practical, this product may be incinerated where permitted by Federal, State, County/Provincial, and Local regulations. Never dispose by means of public sewers or drainage.

Section 14 – TRANSPORT INFORMATION

Ground (US DOT) Not regulated under DOT.
Air (IATA) Not regulated
Vessel..... Not regulated

Section 15 – REGULATORY INFORMATION

	Component 1	Component 2	Component 3	Component 4
CFC, HCFC, HFC, ODS	N	N	N	N
EPA - CAA, CWA	N	N	N	N
EU risk phrase #'s	N	N	N	N
FDA-21 CFR 174.5 (2) (d)	Y	Y	Y	Y
IDLH	N	N	N	N
OSHA listed	N	Y	N	Y
PROP 65 listed	N	N	N	N
RCRA listed	N	N	N	N
SARA 313 list	N	N	N	N
TSCA listed	Y	Y	Y	Y
USDA H-1, -2	H-1	H-1	H-1	H-1

This product has been classified in accordance with hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Section 16 – OTHER INFORMATION

CAUTION Intentional misuse of this chemical product, as with any industrial chemical in contact with the body, can be harmful or fatal. This includes such things as deliberately breathing, placing in mouth, swallowing, placing on skin, or any other body contact, or repeated, or continuous contact.

IMS provides this information in good faith, but makes no representation as to its comprehensiveness or its accuracy. This document is offered as a guide to a trained person, for appropriate precautionary handling. Persons using the product and receiving the information must exercise independent judgment in determining the appropriateness of the use and the safety information for their particular purpose. **IMS MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THIS INFORMATION OR TO THE PRODUCT. ACCORDINGLY, IMS WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE ON THIS INFORMATION.**

ACGIH	American Conference of Governmental Hygienists	NA	Not Applicable, Not Available
AKA	Also Known As, Synonym	ND	Not Determined
CAS	Chemical Abstract Service	NIL	Not measurable, insignificant, non-noticeable, no-affect
GRAS	Generally Recognized As Safe by FDA rule or listing	NTP	National Toxicology Program
H-1, -2	USDA, plant process chemicals that do not touch food stuff	OSHA	Occupational Safety and Health Administration
IARC	International Agency for Research of Cancer	ppm	parts per million
IDLH	Immediately Dangerous to Life or Health, exposure rate/volume	USDA	U S Department of Agriculture
mg/m ³	milligrams per Cubic Meter	Y	Yes, Does Exists, Is Listed,
N	No, None, Not listed, Not Known		