

MATERIAL SAFETY DATA SHEET (MSDS)

1. PRODUCT & COMPANY IDENTIFICATION				
PRODUCT NAME	Grotan BK			
CHEMICAL NAME	Not applicable			
CHEMICAL FAMILY	Triazine compound			
FORMULA	Proprietary			
PRODUCT USE	Metalworking fluid biocide			
2. COMPOSITION/INFORMATION ON INGREDIENTS				
The following are considered to be hazardous ingredients.				
CHEMICAL NAME	CAS#	%	AGENCY	EXPOSURE LIMITS
Hexahydro-1,3,5-tris(2-hydroxyethyl)-s-triazine	4719-04-4	78.5	Not applicable	None established
3. HAZARDS IDENTIFICATION - POTENTIAL HEALTH EFFECTS				
EMERGENCY OVERVIEW				
Grotan BK is a water white to pale yellow viscous liquid with a mild characteristic odor. Highly alkaline, pH=10.8. May be harmful if swallowed. May cause severe eye irritation and irreversible corneal damage. Excessive heat will result in decomposition to formaldehyde. Avoid contamination of streams and sewers.				
ROUTES OF ENTRY				
Ingestion, skin contact, eyes, inhalation				
INGESTION				
Ingestion may cause gastrointestinal irritation, nausea, and vomiting.				
SKIN				
May cause mild skin irritation.				
EYE CONTACT				
May cause moderate to severe eye irritation and irreversible corneal damage if not washed from eyes promptly.				
INHALATION				
May cause respiratory irritation.				
CHRONIC EFFECTS				
Same as effects reported above for acute exposure. There are no other known or reported chronic effects.				
TARGET ORGANS				
None known				
CARCINOGENICITY				
This product (or component) is not listed as a carcinogen according to OSHA, NTP, IARC, and ACGIH.				
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE				
There are no known conditions aggravated by exposure to this product.				
4. FIRST AID MEASURES				
INGESTION				
Immediately drink two glasses of milk or gelatin mixture or, if these are not available, a large quantity of water. Avoid alcohol. DO NOT give anything by mouth if the person is unconscious or having convulsions. Do not induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration. Get medical attention immediately.				
SKIN CONTACT				
Remove contaminated clothing and shoes promptly. Wash affected areas with soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15 minutes). If irritation or redness develops, get medical attention. Wash clothing before reuse.				
EYE CONTACT				
Wash eyes immediately with large amounts of water for at least 15 minutes. Get medical attention immediately.				
INHALATION				
Remove from exposure area to fresh air promptly. If breathing is difficult, oxygen should be administered by qualified personnel. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention.				
NOTES TO PHYSICIAN				
This product is highly alkaline, pH=10.8. Probable mucosal damage may contraindicate use of gastric lavage.				
5. FIRE FIGHTING MEASURES				
FLASH POINT				
>93°C (>200°F) (ASTM D56-79 Tag Closed-Cup)				
FLAMMABLE LIMITS				
Not determined				
AUTOIGNITION TEMPERATURE				
Not determined				
FLAMMABILITY CLASS				
Combustible liquid - Class III B				
HAZARDOUS PRODUCTS OF COMBUSTION				
Carbon monoxide, carbon dioxide, and formaldehyde.				
FIRE EXTINGUISHING MEDIA				
Dry chemical, carbon dioxide, water spray, or regular foam.				
FIRE FIGHTING INSTRUCTIONS				
Move container from fire area if you can do it without risk. Do not scatter spilled material with high-pressure water streams. Avoid breathing vapors, keep upwind. Positive pressure self-contained breathing apparatus with full facepiece and structural firefighters' protective clothing will provide limited protection.				
UNUSUAL FIRE & EXPLOSION HAZARDS				
Contact may cause burns to eyes. Runoff from fire control or dilution water may cause pollution. Excessive heat in excess of 147°C (297°F) will result in decomposition to formaldehyde.				
6. ACCIDENTAL RELEASE MEASURES				
Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. Wear protective equipment as specified in Section 8. Positive pressure self-contained breathing apparatus and structural firefighters' protective clothing will provide limited protection. Shut off ignition sources; no flares, smoking, or flames in hazard area. Stop leak if you can do it without risk. For small spills, absorb with vermiculite or other noncombustible absorbent material and place into containers for later disposal. For large spills, dike far ahead of liquid spill for later disposal. If water pollution occurs, notify the appropriate authorities.				
Observe all Federal, State, and Local regulations regarding notifications of accidental releases.				

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	FOR MSDS INFORMATION: 1-800-994-7045 24 HOUR EMERGENCY PHONE # - CHEMTREC 1-800-424-9300 EMERGENCY FAX # 905-760-7904	Grotan BK
8. PERSONAL PROTECTION/EXPOSURE CONTROLS		
VENTILATION	Provide local exhaust or process enclosure ventilation to minimize exposure.	
SKIN PROTECTION	Direct contact may cause mild skin irritation. Wear impervious gloves and apron to prevent skin contact.	
RESPIRATORY PROTECTION	If exposure may exceed recommended limits, an approved respirator should be used based on exposure levels found in the workplace.	
OTHER	Eyewash and safety shower should be available within the immediate work area for emergency use.	
9. PHYSICAL AND CHEMICAL PROPERTIES		
APPEARANCE	Water white to pale yellow viscous liquid	SPECIFIC GRAVITY AT 25°C. (Water=1) 1.145-1.16
ODOUR	Mild characteristic odor	WATER SOLUBILITY Soluble
ODOUR THRESHOLD	Not available	VISCOSITY (Gardner) AT 25°C. Not available
MOLECULAR WEIGHT	Not available	COEFFICIENT OF WATER/OIL DIST. Not available
INITIAL BOILING POINT	100°C (212°F)	pH 10.3-11.3
FREEZING/MELTING POINT	Not available	EVAPORATION RATE (Butyl acetate=1) <1
VAPOUR DENSITY (Air=1)	>1	% VOLATILES BY WEIGHT 21% nominal
VAPOUR PRESSURE AT 20°C.	22.9 mm Hg	VOC (g/l) EPA Method 24 373
10. STABILITY & REACTIVITY		
REACTIVITY	Stable under normal temperatures and pressures.	
CONDITIONS TO AVOID	Avoid heat or sources of ignition.	
INCOMPATIBILITY	Avoid contact with strong acids, bases, and oxidizers.	
HAZARDOUS DECOMPOSITION	Decomposition may release carbon monoxide, carbon dioxide, and formaldehyde.	
HAZARDOUS POLYMERIZATION	Hazardous polymerization does not occur.	
11. TOXICOLOGICAL INFORMATION		
LD50 (oral, rat) - 535-580 mg/kg., LD50 (dermal, rabbit) >2000 mg/kg; mild skin irritant (dermal, rabbit). Moderate to severe eye irritation (rabbit). Corneal damage may be irreversible if not washed from eyes promptly. Skin sensitization reactions associated with this product have been reported. However, the number of sensitization responses is very low. There is also information that allergic sensitivity, if it occurs, is lost at a fairly rapid rate.		
12. ECOLOGICAL INFORMATION		
This product is toxic to fish and may cause adverse environmental impact.		
13. DISPOSAL INFORMATION		
Disposal procedures must be in accordance with local regulations.		
14. TRANSPORTATION INFORMATION		
TDG, IATA, IMDG		
This product does not meet the definition of any hazard class and therefore is not subject to TDG, IATA, and IMDG Regulations.		
15. REGULATORY INFORMATION		
CHEMICAL INVENTORIES		
The ingredients of this product are all on the following Chemical Substance Inventories, are exempt from the inventories, or are otherwise compliant with inventory requirements of the governing agency.		
TSCA <input checked="" type="checkbox"/> U.S.	EINECS <input checked="" type="checkbox"/> Europe	DSL/NDSL <input checked="" type="checkbox"/> Canada
	AICS <input checked="" type="checkbox"/> Australia	ECL <input checked="" type="checkbox"/> Korea
	MITI/ENCS <input checked="" type="checkbox"/> Japan	PICCS <input checked="" type="checkbox"/> Philippines
IECSC <input checked="" type="checkbox"/> China		
WHMIS CLASSIFICATION D2B		
This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.		
REGISTRATION NUMBER	PCP#11691	
16. OTHER		
REVISIONS	Prepared by: Environmental and Regulatory Affairs Dept.	
This MSDS has been revised in the following sections: (revisions indicated in left border) Sect. 5 (Fire Fighting Measures)		

The information contained herein is provided according to the Controlled Products Regulations and relates to the product identified in Section 1 and shall not be valid for the said product used in any combination with other materials or process. Such information is accurate and reliable to the best of our knowledge as of issue date, but no representation, guarantee, or warranty, express or implied is made to the accuracy, reliability, or completeness of the information.