

MATERIAL SAFETY DATA SHEET

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SECTION 1 -- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME De-I Cool™

DOCUMENT NO. MSDS-0002 REVISION AD

ISSUE DATE December 6, 2004

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SUPPLIER: Thermal Dynamics Corp.
STREET ADDRESS: 82 Benning St.
CITY, STATE, ZIP: West Lebanon, NH 03784

MANUFACTURER: See Supplier

EMERGENCY TELEPHONE NUMBERS
***CHEMTREC (800) 424-9300 USA / CANADA**
703 527 3887 INTERNATIONAL

* For spill, leak, fire or transport accident emergencies.

Product Information: (603) 298-2200

Product Identifier: De-I Cool™

Product Use: Cutting and Welding Torch and System Coolant.

SECTION 2 -- COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS No.	% by wt.	EXPOSURE LIMITS				
			OSHA PEL	ACGIH TLV	R PHRASES	LC50, ppm (inhalation, rat)	LD50, mg/kg (oral, rat)
Benzotriazole	95-14-7	<1.0	N.E.	N.E.	R22,36/37/38	1910 mg/m ³ /3h	560 mg/kg ⁻¹
Water	7732-18-5	>99	N.E.	N.E.	R36/37/38	Not applicable	Not applicable

SECTION 3 -- HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW Causes eye irritation. May be harmful if swallowed. May cause skin irritation.

POTENTIAL HEALTH EFFECTS

INGESTION	May cause nausea or diarrhea.
INHALATION	Not applicable.
EYE CONTACT	Causes eye irritation.
SKIN CONTACT	Can cause skin irritation.

SECTION 4 -- FIRST AID MEASURES

INGESTION	Never give anything by mouth to an unconscious person. Give several glasses of water. If vomiting is spontaneous, keep head below hips to prevent breathing vomit into lungs. Do not induce vomiting. Keep airway clear. Get medical attention.
INHALATION	Should not occur under normal conditions.
EYE CONTACT	Immediately flush eyes with cool running water. Remove contact lenses if applicable. Continue flushing with water for at least 15 minutes. Get immediate medical attention.
SKIN CONTACT	Wash with soap and water. If irritation develops or persists, get medical attention.
NOTE TO PHYSICIAN	Treat based on judgment of physician in response to reactions of the patient.

SECTION 5 -- FIRE FIGHTING MEASURES

CONDITIONS OF FLAMMABILITY	Product is not a combustible material at normal temperatures.
MEANS OF EXTINCTION	Product is an aqueous solution. Use carbon dioxide, dry chemical or foam.
SENSITIVITY TO MECHANICAL IMPACT / STATIC DISCHARGE	Not susceptible to mechanical impact or static discharge.
FLASH POINT	Not applicable.
UPPER FLAMMABLE LIMIT	Not applicable.
LOWER FLAMMABLE LIMIT	Not applicable.
AUTO IGNITION TEMPERATURE	Not applicable.
HAZARDOUS COMBUSTION PRODUCTS	May produce oxides of carbon and oxides of nitrogen when heated to decomposition.

SECTION 6 -- ACCIDENTAL RELEASE MEASURES

RESPONSE TO SPILLS	Small spills: Mop up residues and place in a covered waste disposal container. Large spills: Dike or dam spill. Pump to containers or soak up with inert absorbent. Place in covered waste disposal container.
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SECTION 7 -- HANDLING AND STORAGE

HANDLING PRECAUTIONS, PROCEDURES AND EQUIPMENT	Keep container in upright position. Avoid contact with skin, eyes, and clothing. DO NOT TAKE INTERNALLY.
STORAGE PRECAUTIONS	Store in a cool dry place. Keep from freezing. Keep containers tightly closed when not in use.

SECTION 8 -- EXPOSURE CONTROLS / PERSONAL PROTECTION

HYGIENIC PRACTICES	Normal procedures for good hygiene.
ENGINEERING CONTROLS	Good general ventilation. Eye wash station in immediate area of use. M.E.L./O.E.S Nil. U.K HSE EH:40 Not listed

PERSONAL PROTECTIVE EQUIPMENT

	RESPIRATOR	Not required.
X	GOGGLES / FACE SHIELD	Recommended.
	APRON	Not required.
	GLOVES	Not required.
	BOOTS	Not required.

SECTION 9 -- PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	Clear yellow liquid	ODOR THRESHOLD	Not available
BOILING POINT	100°C	FREEZING POINT	0°C
SPECIFIC GRAVITY	1.000	COEFFICIENT OF WATER/OIL DISTRIBUTION	Not applicable
VAPOR DENSITY	Not available	VAPOR PRESSURE	Not available
ODOR	None	pH	5.5 – 7.0
SOLUBILITY IN WATER	Complete	EVAPORATION RATE	Not available

SECTION 10 -- STABILITY AND REACTIVITY

CHEMICAL STABILITY	STABLE	<input checked="" type="checkbox"/>	UNSTABLE	<input type="checkbox"/>
CONDITIONS TO AVOID	None.			
INCOMPATIBILITY	None known,			
HAZARDOUS PRODUCTS OF DECOMPOSITION	See "HAZARDOUS COMBUSTION PRODUCTS" above.			
POLYMERIZATION	WILL NOT OCCUR	<input checked="" type="checkbox"/>	MAY OCCUR	<input type="checkbox"/>

SECTION 11 -- TOXICOLOGICAL INFORMATION

CARCINOGENICITY

	THIS PRODUCT CONTAINS A KNOWN OR SUSPECTED CARCINOGEN
X	THIS PRODUCT DOES NOT CONTAIN ANY KNOWN OR ANTICIPATED CARCINOGENS ACCORDING TO THE CRITERIA OF THE NTP ANNUAL REPORT ON CARCINOGENS AND OSHA 29 CFR 1910, Z .

ROUTES OF EXPOSURE AND ACUTE / CHRONIC EFFECTS

EXPOSURE LIMITS	See section 2.
INHALATION	Not expected to present significant inhalation hazard under anticipated conditions of normal use. Inhalation may cause irritation of the nose and throat.
SKIN CONTACT	Not expected to present significant skin hazard under anticipated conditions of normal use. Skin contact may cause irritation.
EYE CONTACT	May cause minor eye irritation.
INGESTION	May cause nausea, diarrhea.
CHRONIC EFFECTS	Not available.
TERATOGENICITY	Not available.
MUTAGENICITY	Not available.
REPRODUCTIVE TOXICITY	Not available.
SENSITIZATION	Not available.
SYNERGISTIC MATERIALS	None known.

SECTION 12 -- ECOLOGICAL INFORMATION

BIODEGRADABILITY	Not available.	CONSIDERED BIODEGRADABLE	<input type="checkbox"/>	NOT BIODEGRADABLE	<input type="checkbox"/>
BOD / COD VALUE	Not available.				
ECOTOXICITY	Not available.				

SECTION 13 -- DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD	Waste material must be disposed of in accordance with national / local Legislative requirements.				
RCRA CLASSIFICATION	Non hazardous.				
RECYCLE CONTAINER	YES	X	CODE	2 - HDPE	NO

SECTION 14 -- TRANSPORT INFORMATION

UN CLASSIFICATION	HAZARDOUS		NOT HAZARDOUS	X
DESCRIPTION	Not applicable.			
SPECIAL SHIPPING INFORMATION	No special shipping requirements.			

SECTION 15 -- REGULATORY INFORMATION

REGULATORY STATUS: Benzotriazole

1.	Labeling Information	Irritant
2.	R Phrases	R 36/37/38, 22
3.	S Phrases	S 24/25, 26
4.	EI NECS No.	Not listed
5.	EC annex 1 Classification	Nil.
6.	German WGK	-

WHMIS Information: Class D2A, Poisonous and Infectious Materials, Other Toxic Effects, Toxic Materials.

TDG Information: Not regulated as dangerous goods.

Department of Transportation (DOT): Not hazardous according to DOT criteria.

SECTION 16 -- OTHER INFORMATION

NFPA CLASSIFICATION

0	BLUE	HEALTH HAZARD
1	RED	FLAMMABILITY
0	YELLOW	REACTIVITY
N/A	WHITE	SPECIAL HAZARD

Information contained in this MSDS refers only to the specific material designated and does not relate to any process or use involving other materials. This information is based on data believed to be reliable, and the Product is intended to be used in a manner that is customary and reasonably foreseeable. Since actual use and handling are beyond our control, no warranty, express or implied, is made and no liability is assumed by Thermal Dynamics in connection with the use of this information. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer's responsibility to ensure that its activities comply with federal, provincial or state, and local laws. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and this MSDS contains all the information required by the Controlled Products Regulations.