



MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Durac®Plus Biodegradable Liquid		DATE: 6/4/2009
PRODUCT NUMBER:		
TRADE NAME: DURAC PLUS liquid. GENERAL USE: Liquid for thermometer fill. CHEMICAL FAMILY: Acetone plus blue colored dye. PRODUCT DESCRIPTION: Blue liquid with nail polish odor.		
MANUFACTURER H-B Instrument Company		DATE PREPARED: June 4, 2009
		SUPERSEDES: New Issue
ADDRESS (NUMBER, STREET, P.O. BOX) 102 West Seventh Avenue		TELEPHONE NUMBER FOR INFORMATION / Customer Service 610-489-5500
(CITY, STATE AND ZIP CODE) Trappe, PA 19426	COUNTRY USA	CHEMTEL 24-HOUR EMERGENCY TELEPHONE NUMBER  1-800-255-3924 813-248-0585 North America Toll Free International

SECTION 2 - HAZARDOUS INGREDIENTS

Hazardous Components	% (by Weight)	CAS #	EINECS #	Hazard Symbol	RISK PHRASES (Full Text Section 15)
Acetone	NR	67-64-1	200-662-2	F, Xi	R11, 36, 66, 67

Notes: This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS), and European Union Directive 1907/2006/EEC. Hazard symbols and risk phrases are based on maximum listed concentration of each hazardous ingredient. Unlisted ingredients are not "hazardous" per the OSHA Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS) or the European (GHS) directive 91/155/EEC and are considered trade secrets under US Federal Law (29CFR and 40CFR), Canadian Law (Health Canada Legislation), and European Union Directive 1997/2006/EEC.

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
 Flammable liquid, potentially hazardous vapors. Can cause eye and skin irritation upon contact. Inhalation of vapors can cause anesthetic effect leading to death in poorly ventilated areas.

POTENTIAL HEALTH EFFECTS

INHALATION:
 High concentrations are irritating to the respiratory tract. May cause headache, dizziness, nausea, vomiting and malaise. Intentional concentration and inhalation of vapors may lead to nervous system damage.

SKIN:
 Brief contact may cause slight irritation; prolonged contact may cause moderate irritation or dermatitis.

EYES:
 High vapor concentration or contact may cause irritation and discomfort.

INGESTION:
 May result in vomiting; aspiration of vomitus into the lungs must be avoided; DO NOT induce vomiting. Minute amounts aspirated into the lungs can produce severe lung injury, chemical pneumonitis, pulmonary edema or death.

CARCINOGENICITY:

NTP? NO	IARC MONOGRAPHS? NO	OSHA REGULATED? NO
CALIFORNIA, Prop.65? NO		ESIS NOTATION? NO

SECTION 4 - FIRST AID MEASURES

INHALATION:
 Remove affected person to fresh air; provide oxygen if breathing is difficult; if affected person is not breathing, administer CPR and seek emergency medical attention.

EYES:
 Check for and remove contact lenses. Flush eyes with clear running water for 15 minutes while holding eyelids open; if irritation persists, seek medical attention. Do not use over-the-counter products except under physician directions.

SKIN:
 Remove & launder contaminated clothing, wash affected area with soap and water, & seek medical help for persistent irritation.

INGESTION:
DO NOT INDUCE VOMITING!!! If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs. Seek immediate emergency medical attention; transport container with victim to assist with treatment.

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SECTION 5 - FIRE FIGHTING MEASURES

GENERAL HAZARDS:
 Product is flammable, with a flash point of - 18° C (0° F). Products of combustion include compounds of carbon, hydrogen and oxygen, including carbon monoxide. Vapors may cause a flash fire or ignite explosively. vapors may travel a considerable distance to a source of ignition and flash back.

EXTINGUISHING MEDIA:
 Carbon dioxide, water fog, dry chemical, chemical foam. Avoid the use of streaming water, as this may spread fire.

FIRE FIGHTING PROCEDURES:
 Firefighters must wear full facepiece self - contained breathing apparatus in positive pressure mode. Do not use solid stream of water since stream will scatter and spread fire. Fine water spray can be used to keep fire - exposed containers cool.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
 Closed containers of fluid can explode due to buildup of pressure when exposed to extreme heat. Use of water fog or stream to cool containers is suggested..

HAZARDOUS COMBUSTION PRODUCTS:
 Smoke, soot, fumes or vapors, oxides of carbon.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
 CAUTION - HIGHLY FLAMMABLE LIQUID - Evacuate and ventilate area, remove all sources of sparks, ignition and open flames, and turn off electrical circuits in area. Wear personal protective equipment, including organic vapor respirator or self-contained breathing apparatus, as needed. For small spills, confine product and absorb into approved absorbent; place material into approved flammable waste containers for disposal. Treat used absorbent as flammable. For large spills, evacuate area and contact authorities.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
 CAUTION - FLAMMABLE - keep open container away from all sources of ignition. Avoid temperature extremes.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

HAZARDOUS COMPONENTS	NIOSH				ACGIH		OSHA	
	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	TLV/TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³
Acetone	250	590			500		1000	2400

PERSONAL PROTECTION

RESPIRATORY PROTECTION:
 Not required for normal work situations where adequate ventilation is provided. Use NIOSH or European EN-149 approved self contained, positive pressure respirators for emergencies and in situations where air may be displaced by vapors. Follow OSHA Std. 29CFR 1910.134 or corresponding EU Directives .

PROTECTIVE GLOVES:
 Not Generally needed, wear gloves (neoprene) to handle spills.

EYE PROTECTION:
 Chemical safety goggles, preferably with side shields should be worn as a matter of proper industrial practice. Refer to 29 CFR 1910.133 within the US or European Standard EN166 within the EU.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:
 Provide a safety eyewash nearby, in case of splash injury. Where extensive dermal exposure may be expected, either a chemical suit or a chemical apron will be needed. Neoprene is a good compromise material between chemical resistance, physical durability, and cost.

WORK / HYGIENIC PRACTICES:
 Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general. Do not smoke, eat or drink while using the product. Wash hands with soap and water before smoking, eating, drinking or using toilet facilities. Launder contaminated clothing before re-use.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR Blue liquid with nail polish odor.	VAPOR PRESSURE NR
pH NA	SPECIFIC GRAVITY (WATER = 1) 0.8
BOILING POINT / BOILING RANGE 133°F (56°C)	SOLUBILITY IN WATER Miscible
FLASH POINT -4°F (-20°C)	VISCOSITY NA
FLAMMABLE LIMITS LEL: 2.2 UEL: 13	VAPOR DENSITY (AIR = 1) ~1.2
AUTOIGNITION TEMPERATURE NR	EVAPORATION RATE BuAc = 1) >1

SECTION 10 - STABILITY AND REACTIVITY

STABILITY STABLE X	CONDITIONS TO AVOID: Avoid contact with incompatible materials.
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers, Strong acids.	
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Carbon monoxide, Carbon dioxide.	
HAZARDOUS POLYMERIZATION: Will not occur.	CONDITIONS TO AVOID: None related to polymerization.

SECTION 11 - TOXICOLOGICAL INFORMATION

Hazardous Components	CAS # EINECS #	LD50 of Ingredient (Specify Species and Route)	LC50 of Ingredient (Specify Species)
Acetone	67-64-1 200-662-2	5,500 mg/kg (Intravenous, rat) 5,800 mg/kg (oral, rat)	50,100 mg/m³/8 hour (inhalation, rat)

SECTION 12 - ECOLOGICAL INFORMATION

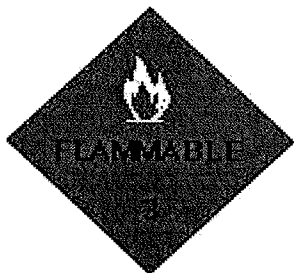
Product is biodegradable and does not have a persistent or toxic environmental impact.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:
 Product is biodegradable and may be disposed of to sewage treatment facilities. This product has been evaluated for RCRA characteristics and does not meet the criteria for a hazardous waste, if discarded in its purchased form.

SECTION 14 - TRANSPORT INFORMATION

PROPER SHIPPING NAME: ORM-D (Within US only), Acetone, UN 1090 (International, Bulk)	
DOT HAZARD CLASS / Pack Group: 3 / PG II (International) REFERENCE: 49 CFR 172.173 UN / NA IDENTIFICATION NUMBER: 1090 LABEL: ORM-D or Flammable HAZARD SYMBOLS:	IATA HAZARD CLASS / Pack Group: 3 / PG II (see below) IMDG HAZARD CLASS: 3 RID/ADR Dangerous Goods Code: 3 UN TDG Class / Pack Group: NA Hazard Identification Number (HIN): 33 IATA Regulations may allow for this product to be shipped in excepted quantities. Contact IATA or the Dangerous goods specialists at your shipper for full requirements.



Note: Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EU, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

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SECTION 15 - REGULATORY INFORMATION

TSCA (USA - Toxic Substance Control Act): Ingredients referenced.
 SARA TITLE III (USA - Superfund Amendments and Reauthorization Act):
 Acute Health: Yes Chronic Health: NO
 Fire: Yes Sudden Release of Pressure: NO
 Reactive: NO

313 REPORTABLE INGREDIENTS: Acetone (CAS 67-64-1)
 CERCLA (USA - Comprehensive Response Compensation and Liability Act): Acetone - RQ 5000 lbs (2260 kg)
 California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986: None listed.

State Right to Know Laws: Acetone listed - CA, NJ, PA, MN, MA, FL
 CPR (Canadian Controlled Products Regulations): CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). CLASS D-2B: Material causing other toxic effects (TOXIC).



IDL (Canadian Ingredient Disclosure List): Listed
 DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List): Listed on CDSL.
 EINECS (European Inventory of Existing Commercial Chemical Substances): Referenced.

WGK Water Quality Index: 1

RISK PHRASES:	SYMBOL(S) REQUIRED FOR EU LABEL	SAFETY PHRASES:
R11: Highly flammable. R36: Irritating to eyes. R66 : Repeated exposure may cause skin dryness or cracking. R67 Vapors may cause drowsiness and dizziness.	 Flammable Irritant	S2: Keep out of the reach of children S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S46: If swallowed, seek medical advice immediately and show this container or label.

SECTION 16 - OTHER INFORMATION

Legend: NE= Not established NR= Not reported NA= Not applicable.

HMSI HAZARD RATINGS	HEALTH:	2	0 = INSIGNIFICANT
	FLAMMABILITY:	4	1 = SLIGHT
	PHYSICAL HAZARD:	0	2 = MODERATE
	PERSONAL PROTECTIVE EQUIPMENT:	A	3 = HIGH
			4 = EXTREME

REVISION SUMMARY:
 New Issue 6/4/2009.

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The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.