

# MATERIAL SAFETY DATA SHEET

01/11/13

## PRODUCT : LIQUID BRIDGE PLUG® PART B (LT INITIATOR)

Supplier: M&D INDUSTRIES OF LOUISIANA, INC  
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### SECTION I NAME

**PRODUCT:** LIQUID BRIDGE PLUG® Part B (INITIATOR)  
**CHEM NAME:** AROMATIC DIAMINE  
**CHEM FAMILY:** CURING AGENT

**HEALTH HAZARD:** 3 **FIRE HAZARD:** 1 **REACTIVITY:** 0

### SECTION II-A INGREDIENTS

NO.	COMPOSITION	CAS NO.	PERCENT
P	LIQUID BRIDGE PLUG® - Part B (INITIATOR)		
1	PROPRIETARY BLEND	68479-98-1	100

### SECTION II-B ACUTE TOXICITY DATA

NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LD50
P	598 MG/KG (RAT)	>1000 MG/KG (RABBIT)	NO DATA AVAILABLE

### SECTION III HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

#### EYE CONTACT:

BASED ON PRODUCT TESTING, PRODUCT MAY BE MODERATELY TO SEVERELY IRRITATING TO THE EYES.

#### SKIN CONTACT:

BASED ON PRODUCT TESTING, PRODUCT MAY BE MILDLY IRRITATING TO THE SKIN. PRODUCT MAY CAUSE SKIN SENSITIZATION. BASED ON PRODUCT TESTING, PRODUCT MAY BE TOXIC IF ABSORBED THROUGH THE SKIN.

**INHALATION:**

NOT EXPECTED TO BE A RELEVANT ROUTE OF EXPOSURE, HOWEVER, UNDER CONDITIONS WHERE EXPOSURE TO VAPORS OR MISTS IS POSSIBLE, MAY CAUSE IRRITATION. MAY BE TOXIC IF INHALED.

**INGESTION:**

NOT EXPECTED TO BE A RELEVANT ROUTE OF EXPOSURE, HOWEVER, PRODUCT IS TOXIC IF SWALLOWED.

**SIGNS AND SYMPTOMS:**

IRRITATION AS NOTED ABOVE. SKIN SENSITIZATION (ALLERGY) MAY BE EVIDENCED BY RASHES, ESPECIALLY HIVES.

**AGGRAVATED MEDICAL CONDITIONS:**

PREEXISTING EYE, SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. IMPAIRED PANCREAS FUNCTIONS FROM PREEXISTING DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

**OTHER HEALTH EFFECTS:**

DETDCA CAUSED CANCER AND PANCREATIC TOXICITY IN AN ORAL RAT STUDY. SEE SECTION VI.

**SECTION IV OCCUPATIONAL EXPOSURE LIMITS**

COMP NO.	OSHA		ACGIH		OTHER
	PEL/TWA	PEL/CEILING	TLV/TWA	TLV/STEL	
P	NONE ESTABLISHED				

**SECTION V EMERGENCY AND FIRST AID PROCEDURES**

**EYE CONTACT:**

IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.

**SKIN CONTACT:**

IMMEDIATELY REMOVE CONTAMINATED CLOTHING OR SHOES, WIPE EXCESS FROM SKIN AND FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. USE SOAP IF AVAILABLE OR FOLLOW BY WASHING WITH SOAP AND WATER. DO NOT REUSE CLOTHING UNTIL THOROUGHLY CLEANED. GET MEDICAL ATTENTION. CONTAMINATED LEATHER ARTICLES, INCLUDING SHOES, CANNOT BE DECONTAMINATED AND SHOULD BE DESTROYED.

**INHALATION:**

REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET MEDICAL ATTENTION.

**INGESTION:**

DO NOT GIVE LIQUIDS IF VICTIM IS UNCONSCIOUS OR VERY DROWSY. OTHERWISE, GIVE NO MORE THAN 2 GLASSES OF WATER AND INDUCE VOMITING BY GIVING 30CC (2 TABLESPOONS) SYRUP OF IPECAC.\* IF IPECAC IS UNAVAILABLE, GIVE 2 GLASSES OF WATER AND INDUCE VOMITING BY TOUCHING FINGER TO BACK OF VICTIM'S THROAT. KEEP VICTIM'S HEAD BELOW HIPS WHILE VOMITING. GET MEDICAL ATTENTION.

**NOTE TO PHYSICIAN:**

\*IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE SHOULD BE CONSIDERED FOLLOWING INTUBATION WITH A CUFFED ENDOTRACHEAL TUBE.

**SECTION VI SUPPLEMENTAL HEALTH INFORMATION**

DIETHYLTOLUENEDIAMINE (DETDA) HAS CAUSED AN INCREASED INCIDENCE OF LIVER, THYROID AND PITUITARY TUMORS IN A 2 YEAR STUDY IN RATS DOSED UP TO 70 PPM DAILY. THE NOEL WAS 35 PPM. PANCREATIC TOXICITY WAS ALSO OBSERVED IN THIS STUDY. IN A 90 DAY ORAL STUDY IN WHICH RATS WERE DOSED UP TO 320 PPM, EFFECTS TO THE SPLEEN, KIDNEY, PANCREAS, LIVER, BONE MARROW, LYMPH SYSTEM AND THYROID OCCURRED; PRIMARILY AT THE HIGHER DOSE. DECREASED BODY WEIGHT, EARLY DEATHS, INCREASED BLOOD GLUCOSE AND CATARACTS WERE ALSO OBSERVED IN THIS STUDY.

**SECTION VII PHYSICAL DATA**

<b>BOILING POINT (DEG F):</b>	<b>SPECIFIC GRAVITY (H2O = 1):</b>	<b>VAPOR PRESSURE (MM HG):</b>
586	1.02	<0.001 @ 20 DEG. C

<b>MELTING POINT (DEG F):</b>	<b>SOLUBILITY IN WATER:</b>	<b>VAPOR DENSITY (AIR = 1):</b>
NOT AVAILABLE	SLIGHT	6.2

**EVAPORATION RATE (NORMAL BUTYL ACETATE = 1):** NOT AVAILABLE

**APPEARANCE AND ODOR:** CLEAR LIQUID/PUNGENT ODOR.

**FREEZE POINT: WILL CRYSTALLIZE BUT WILL NOT FREEZE**

**SECTION VIII FIRE AND EXPLOSION HAZARDS**

**FLASH POINT AND METHOD:** 275 DEG F (TCC)

**FLAMMABLE LIMITS/PERCENT VOLUME IN AIR:** LOWER: N/AV UPPER: N/AV

**EXTINGUISHING MEDIA:**

USE WATER FOG, "ALCOHOL" FOAM, DRY CHEMICAL OR CO2. WATER OR FOAM MAY CAUSE FROTHING WHICH CAN BE VIOLENT, ESPECIALLY IF SPRAYED INTO CONTAINERS OF HOT OR BURNING LIQUID.

**SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS:**

MATERIAL WILL NOT BURN UNLESS PREHEATED. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKERCOATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

DELAYED LUNG DAMAGE (PULMONARY EDEMA) CAN BE EXPERIENCED AFTER EXPOSURE TO COMBUSTION PRODUCTS, SOMETIMES HOURS AFTER THE EXPOSURE. NITROGEN OXIDES AND

NITROGEN CONTAINING ORGANIC COMPOUNDS MAY BE RELEASED UPON COMBUSTION. CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE. SEE SECTION XII.

## **SECTION IX REACTIVITY**

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**STABILITY:** STABLE

**HAZARDOUS POLYMERIZATION:** WILL NOT OCCUR

**CONDITIONS AND MATERIALS TO AVOID:**

AVOID HEAT, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS, SUCH AS PEROXIDES.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

NITROGEN OXIDES, CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING THERMAL OR OXIDATIVE DECOMPOSITION OR COMBUSTION.

## **SECTION X EMPLOYEE PROTECTION**

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**RESPIRATORY PROTECTION:**

DO NOT BREATHE VAPORS OR MISTS. USE A NIOSH-APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134, USE EITHER A FULL-FACE, ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS. AVOID BREATHING VAPORS WHICH MAY BE PRODUCED UNDER SOME CONDITIONS SUCH AS HEATING OR APPLICATIONS OF UNCURED MATERIAL IN LARGE SURFACE AREAS (E.G., FLOORING AND PAINTING). AVOID BREATHING AEROSOLS AND MISTS WHICH MAY BE FORMED BY VARIOUS METHODS OF APPLICATION.

**PROTECTIVE CLOTHING**

DO NOT GET IN EYES. WEAR CHEMICAL GOGGLES IF THERE IS POTENTIAL CONTACT WITH EYES. DO NOT GET ON SKIN, ON CLOTHING. WEAR CHEMICAL-RESISTANT PROTECTIVE CLOTHING SUCH AS GLOVES, OUTER CLOTHING OR APRON, OVERSHOES AND A FACE-SHIELD SUITABLE TO POTENTIAL EXPOSURE.

**ADDITIONAL PROTECTIVE MEASURES:**

USE VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE FOR EMERGENCY USE.

## **SECTION XI ENVIRONMENTAL PROTECTION**

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**SPILL OR LEAK PROCEDURES:**

MAY BURN ALTHOUGH NOT READILY IGNITABLE. USE CAUTIOUS JUDGMENT WHEN CLEANING UP LARGE SPILLS. \*\*\* LARGE SPILLS \*\*\* WEAR RESPIRATOR AND PROTECTIVE CLOTHING AS APPROPRIATE. SHUT OFF SOURCE OF LEAK IF SAFE TO DO SO. DIKE AND CONTAIN. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND OR OTHER SUITABLE MATERIAL; DISPOSE OF PROPERLY. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE. \*\*\* SMALL SPILLS \*\*\* TAKE UP WITH AN ABSORBENT MATERIAL AND DISPOSE OF PROPERLY.

## **SECTION XII SPECIAL PRECAUTIONS**

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STORE IN A COOL, DRY PLACE WITH ADEQUATE VENTILATION. KEEP AWAY FROM OPEN FLAMES

AND HIGH TEMPERATURES.  
HEATING THIS CURING AGENT IN THE PRESENCE OF AIR MAY THERMAL AND OXIDATIVE DECOMPOSITION. WITH SOME CURING AGENTS, IT MAY PRODUCE EXOTHERMIC REACTIONS WHICH IN LARGE MASSES CAN CAUSE RUNAWAY POLYMERIZATION AND CHARRING OF THE REACTANTS. FUMES AND VAPORS FROM THESE THERMAL AND CHEMICAL DECOMPOSITIONS VARY WIDELY IN COMPOSITION AND TOXICITY. DO NOT BREATHE FUMES. USE A NIOSH-APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVER EXPOSURE. IN ACCORD WITH 29 CFR 1910.134, USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

WARNING! POSSIBLE CANCER HAZARD - THYROID, PITUITARY AND LIVER. POSSIBLE PANCREAS TOXIN. MAY BE TOXIC BY INGESTION, ABSORPTION OR INHALATION. MAY CAUSE SKIN SENSITIZATION. EYE IRRITANT. MAY CAUSE SKIN AND RESPIRATORY TRACT IRRITATION. CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN HAZARDOUS PRODUCT RESIDUES. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, APPLYING COSMETICS, OR USING TOILET FACILITIES. LAUNDRY CONTAMINATED CLOTHING BEFORE REUSE. CONTAMINATED LEATHER ARTICLES INCLUDING SHOES CANNOT BE DECONTAMINATED AND SHOULD BE DESTROYED TO PREVENT REUSE.

## **SECTION XIII TRANSPORTATION REQUIREMENTS**

### **DEPARTMENT OF TRANSPORTATION CLASSIFICATION:**

NOT REGULATED BY D.O.T.

### **DOT PROPER SHIPPING NAME:**

NONE

### **OTHER REQUIREMENTS:**

NONE

## **SECTION XIV OTHER REGULATORY CONTROLS**

THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES.

PROTECTION OF STRATOSPHERIC OZONE (PURSUANT TO SECTION 611 OF THE CLEAN AIR ACT AMENDMENTS OF 1990): PER 40 CFR PART 82, THIS PRODUCT DOES NOT CONTAIN NOR WAS IT DIRECTLY MANUFACTURED WITH ANY CLASS I OR CLASS II OZONE DEPLETING SUBSTANCES. IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE ATTACHED ENVIRONMENTAL DATA SHEET (EDS) SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS.

## **SECTION XV STATE REGULATORY INFORMATION**

<b>STATE LISTED COMPONENT</b>	<b>CAS NO.</b>	<b>PERCENT</b>	<b>STATE CODE</b>
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## **SECTION XVI SPECIAL NOTES**

NOTE: MSDS GENERAL ASSISTANCE NUMBER HAS CHANGED. \_\_\_\_\_  
THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, RESOLUTION PERFORMANCE PRODUCTS MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE

DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. RESOLUTION PERFORMANCE PRODUCTS ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

WE ARE PROVIDING OUR MOST RECENT MATERIAL SAFETY DATA SHEET AND/OR ENVIRONMENTAL DATA SHEET. IF YOU WISH TO RECEIVE UPDATES TO THIS INFORMATION, PLEASE CALL RESOLUTION PERFORMANCE PRODUCTS'S GENERAL MSDS ASSISTANCE LINE (832-486-6700) TO ENSURE THAT YOU ARE ADDED TO RESOLUTION PERFORMANCE PRODUCT'S REGULAR MSDS DISTRIBUTION SYSTEM.

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## ENVIRONMENTAL DATA SHEET

### LIQUID BRIDGE PLUG® Part B (INITIATOR)

**TELEPHONE NUMBER:**

24 HOUR EMERGENCY ASSISTANCE  
Domestic: (800) 772-6833  
International: (337) 984-0471

**COMPANY NAME AND ADDRESS**

M&D INDUSTRIES OF LOUISIANA, INC,  
502 RICHLAND AVENUE  
LAFAYETTE, LA 70508 USA

### SECTION I PRODUCT COMPOSITION

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NO.	COMPOSITION	CAS	PERCENT
P	LIQUID BRIDGE PLUG® - Part B		
1	PROPRIETARY BLEND	68479-98-1	100

### SECTION II SARA TITLE III INFORMATION

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NO.	EHS RQ	EHS TPQ	SEC-313	313 CATEGORY	311/312 CATEGORY
	(*1)	(*2)	(*3)	(*4)	(*5)

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- \*1 = REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE, SEC 302
  - \*2 = THRESHOLD PLANNING QUANTITY, EXTREMELY HAZARDOUS SUBSTANCE, SEC 302
  - \*3 = TOXIC CHEMICAL, SEC 313
  - \*4 = CATEGORY AS REQUIRED BY SEC 313 (40 CFR 372.65 C), MUST BE USED ON TOXIC RELEASE INVENTORY FORM
  - \*5 = CATEGORY (FOR AGGREGATE REPORTING REQUIREMENTS UNDER SARA 311, 312)
    - HEALTH: H-1 = IMMEDIATE (ACUTE) HEALTH HAZARD
    - H-2 = DELAYED (CHRONIC) HEALTH HAZARD
    - PHYSICAL: P-3 = FIRE HAZARD
    - P-4 = SUDDEN RELEASE OF PRESSURE HAZARD
    - P-5 = REACTIVE HAZARD

### **SECTION III ENVIRONMENTAL RELEASE INFORMATION**

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EPA - COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT. UNDER EPA-CERCLA ("SUPERFUND") RELEASES TO AIR, LAND OR WATER WHICH EXCEED THE REPORTABLE QUANTITY MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER, 800-424-8802. KEEP OUT OF SURFACE WATERS, SEWERS, AND WATERWAYS ENTERING OR LEADING TO SURFACE WATERS. NOTIFY AUTHORITIES IF ANY EXPOSURE TO THE GENERAL PUBLIC OR ENVIRONMENT OCCURS OR IS LIKELY TO OCCUR.

### **SECTION IV RCRA INFORMATION**

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PLACE IN AN APPROPRIATE DISPOSAL FACILITY IN COMPLIANCE WITH LOCAL REGULATIONS.

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