

MATERIAL SAFETY DATA SHEET

BL 9151

SECTION 1: PRODUCT INFORMATION

PRODUCT NAME: BL 9151	PRODUCT USE: Corrosion Inhibitor
MANUFACTURER: Buckman Laboratories of Canada, Ltd. 351 Joseph Carrier Vaudreuil-Dorion, Quebec J7V 5V5	EMERGENCY TELEPHONE NUMBER: (450) 424 - 4404

SECTION 2: PREPARATION INFORMATION

MSDS PREPARED BY: Buckman Laboratories of Canada, Ltd.	DATE PREPARED: Feb. 19, 2001 (M/D/Y)
TELEPHONE: (450) 424-4404	SUPERCEDES: Aug 18, 1998

SECTION 3: HAZARDOUS INGREDIENTS

INGREDIENT	CHEMICAL NAME	CAS REGISTRY #	% BY WT.
1	Methanol	67-56-1	15.0 - 40.0
2	2-Propanol	67-63-0	5.0 - 10.0
3	Hydrazine	302-01-2	1.0 - 5.0

INGREDIENT	ACUTE ORAL LD50 (mg/kg)	ACUTE DERMAL LD50 (mg/kg)	ACUTE INHALATION LC50 (ppm)	TLV
1	Not available	Not available	Not available	200 ppm
2	4710 (rat)	12870 (rabbit)	17000 ppm (rat - 4 hr)	400 ppm
3	100 - 120 (rat)	225 - 290 (rabbit)	Not available	0.01 ppm

The balance of the components are not hazardous according to WHMIS classifications and are not listed on the Ingredient Disclosure List.

SECTION 4: PHYSICAL DATA

APPEARANCE: Clear, yellow	PHYSICAL STATE: Liquid	ODOUR: Slight, fatty	ODOUR THRESHOLD: Not determined
DENSITY (g/ml @ 25°C): 0.91 - 0.92	EVAPORATION RATE: Not tested	VAPOUR DENSITY: Not tested	VAPOUR PRESSURE: Not tested
pH (neat): 9.0	pH (100 ppm in water) 7.0	BOILING POINT: > 100°C	FREEZING / MELTING POINT: Not tested

OIL/WATER PARTITION COEFFICIENT: Not determined	SOLUBILITY: Completely soluble in water
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SECTION 5: FIRE AND EXPLOSION HAZARDS

FLASH POINT & METHOD: 27 °C (Tag Closed Cup)	AUTO-IGNITION TEMPERATURE: Not determined
UPPER FLAMMABLE LIMIT (% vol. in air): Not determined	LOWER FLAMMABLE LIMIT (% vol. in air): Not determined
FLAMMABILITY CONDITIONS: Liquid can burn upon heating to temperatures at or above the flash point.	HAZARDOUS COMBUSTION PRODUCTS: Oxides of carbon, ammonia, hydrogen.
EXTINGUISHING MEDIA: Use water spray to cool fire exposed surfaces and to protect personnel. Water fog, carbon dioxide, foam or dry chemical may be used to extinguish fire.	SPECIAL FIRE FIGHTING PROCEDURES: Wear NIOSH approved self-contained breathing apparatus, and full protective gear. Isolate "fuel" supply from fire.
EXPLOSION (Sensitivity to Mechanical Impact): Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Avoid pressurizing, cutting, welding, brazing, soldering, drilling, or grinding the container.	EXPLOSION (Sensitivity to Static Discharge): Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Avoid exposing such containers to heat, flame, sparks, static electricity or other sources of ignition.

SECTION 6: REACTIVITY

CHEMICAL STABILITY: Stable under normal conditions of use and storage.	CONDITIONS OF UNSTABILITY: None known.
INCOMPATIBILITY WITH OTHER SUBSTANCES: Strong acids, strong bases, strong oxidizers, and reducing agents. Reactive metals.	HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon, ammonia.

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SECTION 7: TOXICOLOGICAL DATA

PRIMARY ROUTES OF EXPOSURE:

Eyes:	Yes	Skin:	Yes	Inhalation	Yes	Ingestion:	No Data
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EFFECTS FROM ACUTE EXPOSURE:

Eye exposure:	Irritant. Effects may range from moderate to severe (corrosion) depending on the length of exposure, solution concentration, and first aid measures.
Skin exposure:	Irritant. Effects may vary depending on the length of exposure, solution concentration, and first aid measures.
Inhalation:	May cause irritation of mucous membranes and lungs. Exposed individuals should be monitored for respiratory distress, bronchitis or pneumonia.
Ingestion:	Ingestion is not expected to be a primary route of exposure. No data is available on human exposure. May be harmful if swallowed.

EFFECTS FROM CHRONIC EXPOSURE:

The effects from Chronic exposure to this product have not been fully evaluated. Repeated exposures to hydrazine has produced damage to the lungs, liver, kidneys, and blood.

ACUTE EFFECTS (Exposure Limits):

Acute Oral LD50:	Not tested. Expected to be toxic, based on the components.
Acute Dermal LD50:	Not tested. No data available.
Acute Inhalation LC50:	Not tested. No data available.

IRRITANT EFFECTS:	Expected to be irritating to the eyes and skin.
SENSITIZATION EFFECTS:	Not tested but expected to be a sensitizer.
CARCINOGENIC POTENTIAL:	Hydrazine is recognized as a cancer-causing agent in animals by IARC and OSHA. It is suspected a probable human carcinogen by IARC and OSHA.
REPRODUCTIVE TOXICITY:	Hydrazine has been shown to produce embryoletality and fetal malformations in laboratory animals.
TERATOGENICITY:	None known.
MUTAGENICITY:	Hydrazine has been shown to cause DNA and chromosomal damage in a number of test systems. It is considered mutagenic.
SYNERGISTIC EFFECTS:	None known.

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SECTION 8: PREVENTION MEASURES

PERSONAL PROTECTION EQUIPMENT:
Hands: Chemically impermeable rubber gloves are required.
Eyes: Safety glasses required, safety goggles recommended.
Respiratory: If misting can occur, a NIOSH approved respirator is recommended.
Body Protective Clothing: Chemical resistant coverall such as a TYVEC suit is required.
Footwear: Steel-toed chemical resistant boots recommended.
Other: An emergency shower complete with eye-wash fountain is strongly recommended.
ENGINEERING CONTROLS: General mechanical ventilation system is adequate. However, local exhaust system is preferred to maintain airborne concentrations below the recommended occupational exposure limits, whenever misting conditions are present or the material is used in a confined space.
LEAK AND SPILL PROCEDURES: Before responding to a spill or leak of this product, review each section of this MSDS. Follow the recommendations given in the "Handling Procedures and Equipment" section. Check the "Fire and Explosion Hazards" section to determine if the use of non-sparking tools is merited. Insure that spilled or leaked product does not come into contact with materials listed as incompatible. If irritating fumes are present, consider evacuation of affected areas. Initially minimize area affected by the spill or leak. Block any potential routes to water systems. Place in a properly labeled container for later disposal. Larger spills may require a vacuum.
WASTE DISPOSAL METHODS: Disposal shall be in accordance with all applicable federal, provincial and municipal waste regulations.
HANDLING PROCEDURES AND EQUIPMENT: Do not handle unless the safety precautions have been read and understood. Avoid skin and eye contact. Avoid inhalation of dust or vapours. Do not puncture, drag or slide containers. Do not smoke in any chemical handling or storage area. Wash hands before eating.
STORAGE REQUIREMENTS: Store in a cool dry well-ventilated location. Protect from freezing. Keep containers tightly closed. Store away from incompatible materials and ignition sources.
SPECIAL SHIPPING INFORMATION: Refer to Section 10 : T.D.G. Classification

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SECTION 9: FIRST AID MEASURES

EYE EXPOSURE: Flush immediately with copious amounts of clean, cool water for at least 15 minutes. Take exposed individual to a health care professional for further evaluation.
SKIN EXPOSURE: Wash exposed area with plenty of soap and water. Repeat washing. Remove contaminated clothing and wash thoroughly before reuse. If irritation persists consult a health care professional.
INHALATION: If exposure by inhalation is suspected, use proper respiratory protection to immediately move exposed individual to fresh air. If individual experiences nausea, headache, dizziness, has difficulty in breathing or is cyanotic, seek a health care professional immediately.
INGESTION: DO NOT INDUCE VOMITING. Rinse with copious amounts of water or milk, first. Irrigate the esophagus and dilute stomach contents by slowly giving one (1) to two (2) glasses of water or milk. Avoid giving alcohol or alcohol related products. In cases where the individual is semi-comatose, comatose or convulsing, DO NOT GIVE FLUIDS BY MOUTH. Seek a health care professional immediately.

SECTION 10: REGULATORY CLASSIFICATIONS

TDG CLASSIFICATION: HYDRAZINE AQUEOUS SOLUTIONS Class 8 [6.1] - UN 2030 - PG II
Pest Control Products Act: REGISTRATION NUMBER: Not applicable. This product is not a registered pesticide.
U.S. FDA REGULATIONS: FDA (21 CFR) Section(s): Not evaluated.
WHMIS CLASSIFICATION: Class B; Division 2 (flammable), Class D; Division 1A, Class D; Division 2B (eye and skin irritant)
DOMESTIC SUBSTANCES LIST (DSL): All Components are listed on the DSL.

HAZARD RATING:

RATING	HEALTH	FLAMMABILITY	REACTIVITY
HMIS	3	3	1
NFPA	3	3	1

While the information and recommendations set forth are believed to be accurate as of the date of the Material Safety Data Sheet, Buckman Laboratories of Canada, Ltd. makes no warranty with respect thereto and disclaims all liability from reliance thereon. Buckman Laboratories of Canada, Ltd. urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the hazards associated with the product. To promote the safe use and handling of this product, each customer or recipient should distribute this MSDS to the product users.

This MSDS expires Feb. 19, 2004

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