

MATERIAL SAFETY DATA SHEET

**DENMAR BRINES
BOTHWELL, ONTARIO
(519) 695-3734**

PRODUCT: Freeze Fighter Sodium 23

SECTION I - COMPOSITION/INFORMATION OF INGREDIENTS

***HAZARDOUS INGREDIENT**

INGREDIENT	WT. %	TLV	LD50	LC50	CAS #
Sodium Chloride	26-29 (w/v) 22-24 (w/w)	N/A	3,000 mg/kg	> 42 g/m3/1hr	7647-14-5
Water	71-74 (w/v) 76-78 (w/w)	N/A	N/A	N/A	7732-18-5

SECTION II - PREPARATION INFORMATION

MSDS PREP.:LAMBTON SCIENTIFIC
GROUP LEADER:.....CB JAMES
TELEPHONE:.....(519) 344-4747
DATE OF PREPARATION:.....OCTOBER 2007

SECTION III - PRODUCT INFORMATION

PRODUCT:.....SALT SOLUTION
PRODUCT USE:.....DE-ICING AGENT
SHIPPING NAME:.....SALT SOLUTION
CLASS AND DIVISION:.....N.D.G.
U.N.#:.....N.D.G.
PACKING GROUP:.....N.D.G.
HEALTH:.....1
FLAMMABILITY:.....0
REACTIVITY:.....0

SECTION IV - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:.....LIQUID
APPEARANCE, ODOUR:.... .HAZY LIGHT YELLOW COLOUR, TYPICAL ODOUR
ODOUR THRESHOLD:.....NONE
SPECIFIC GRAVITY (AT 25 DEG C):.....1.20
VAPOUR PRESSURE (AT 25 DEG C):.....NOT AVAILABLE
VAPOUR DENSITY (AIR = 1):.....NOT AVAILABLE
EVAPORATION RATE (ETHER = 1):.....NOT AVAILABLE
BOILING POINT (AT 760 MM HG):.....110°C
FREEZING POINT: (Initial).....-22°C
pH (AT 25 DEG C):.....6.5 - 7.5
COEFFICIENT OF WATER/OIL DISTRIBUTION:.....NOT AVAILABLE

SECTION V - FIRE FIGHTING MEASURES

CONDITIONS OF FLAMMABILITY:.....N/A
MEANS OF EXTINCTION:.....N/A
FLASH POINT (METHOD USED):.....N/A
UPPER FLAMMABILITY LIMIT:.....N/A
LOWER FLAMMABILITY LIMIT:.....N/A
AUTOIGNITION TEMPERATURE:.....N/A
HAZARDOUS COMBUSTION PRODUCTS:.....N/A
EXPLOSION DATA - SENSITIVITY TO MECHANICAL:.....N/A
EXPLOSION DATA - SENSITIVITY TO STATIC DISCHARGE:.....N/A

SECTION VI - REACTIVITY DATA

UNSTABLE CONDITIONS:.....STABLE
INCOMPATIBILITY (MATERIAL TO AVOID):....COPPER AND COPPER ALLOYS
CONDITIONS OF REACTIVITY:.....NONE
HAZARDOUS DECOMPOSITION PRODUCTS:.....HYDROGEN CHLORIDE

SECTION VII - TOXICOLOGICAL

SKIN:.....PROLONGED CONTACT MAY CAUSE IRRITATION
EYE:.....IRRITATION, MAY CAUSE BURNS
INGESTION:.....GASTROINTESTINAL IRRITATION
INHALATION:.....IRRITATION OF UPPER RESPIRATORY TRACT
CHRONIC EFFECTS:.....NONE IDENTIFIED
EXPOSURE LIMITS:.....NOT ESTABLISHED
CARCINOGENICITY:.....NONE IDENTIFIED
REPRODUCTIVE EFFECTS:.....NONE IDENTIFIED

SECTION VIII - PREVENTATIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:.SAFETY GOGGLES, RUBBER GLOVES
ARE RECOMMENDED
VENTILATION:.USE ADEQUATE GENERAL OR LOCAL EXHAUST VENTILATION
TO KEEP FUME LEVELS AS LOW AS POSSIBLE
RESPIRATORY PROTECTION:.NONE REQUIRED WHERE ADEQUATE VENTILATION
CONDITIONS EXIST
LEAK OR SPILL:.FLUSH SPILL AREA WITH WATER
STORAGE REQUIREMENTS:.KEEP CONTAINER TIGHTLY CLOSED. SUITABLE
FOR ANY GENERAL CHEMICAL STORAGE AREA.
**THESE PRECAUTIONS ARE FOR ROOM TEMPERATURE HANDLING. USE AT
ELEVATED TEMPERATURE MAY REQUIRE ADDED PRECAUTIONS.**
WASTE DISPOSAL METHOD:.Technical Chemical Services Inc. SUGGESTS
THAT ALL LOCAL, PROVINCIAL AND FEDERAL REGULATIONS CONCERNING
HEALTH AND POLLUTION BE REVIEWED TO DETERMINE APPROVED DISPOSAL
PROCEDURES.

SECTION IX - FIRST AID MEASURES

EYES: .IN CASE OF EYE CONTACT, IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES.

SKIN: .IN CASE OF CONTACT, FLUSH SKIN WITH WATER.

INHALATION: .IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

INGESTION: .CALL A PHYSICIAN. IF SWALLOWED, GIVE LARGE AMOUNTS OF WATER. INDUCE VOMITING.

THESE DATA ARE OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. NO WARRANTY, EITHER EXPRESSED OR IMPLIED, IS HEREBY MADE. THE RECOMMENDED INDUSTRIAL HYGIENE AND SAFE HANDLING PROCEDURE ARE BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTEXT OF THE INTENDED USE AND DETERMINE WHETHER THEY ARE APPROPRIATE.

NOTES:

ACGIH = AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS

IARC = INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

NTP = NATIONAL TOXICOLOGY PROGRAM

OSHA = OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

TLV = THRESHOLD LIMIT VALUE (REGISTERED TO ACGIH)

CAS # = CHEMICAL ABSTRACT NUMBER

TDG = TRANSPORTATION OF DANGEROUS GOODS

WHMIS = WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM

TWAEV = TIME WEIGHTED AVERAGE EXPOSURE VALUE (ONTARIO)

PMCC = PENSKY-MARTIN CLOSED CUP

DATA SOURCES:

- 1) CANADIAN CENTRE FOR OCCUPATIONAL HEALTH AND SAFETY,
HAMILTON, ONTARIO
- 2) NATIONAL FIRE PROTECTION ASSOCIATION DATA
- 3) SUPPLIER MATERIAL SAFETY DATA SHEET
- 4) ONTARIO REGULATION 654/86 (AS AMENDED BY O REG. 707/86)
- 5) PATTY'S INDUSTRIAL HYGIENE AND TOXICOLOGY
- 6) ACGIH - THRESHOLD LIMIT AND BIOLOGICAL EXPOSURE INDICES
- 7) TRANSPORTATION OF DANGEROUS GOODS ACT
- 8) WHMIS LEGISLATION - FEDERAL AND ONTARIO

END OF MSDS FOR SODIUM 23 SOLUTION