



**FRANK'S
MAINTENANCE PRODUCTS INC.**

MATERIAL SAFETY DATA SHEET

PRODUCT: DESCALER

FMP CODE: 100-6240

Section 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURED FOR: FRANK'S MAINTENANCE PRODUCTS INC.
AND SUPPLIED BY: 1299 STRASBURG ROAD
KITCHENER, ONTARIO
N2R 1H2

PHONE NO.: 519-748-4433
FAX NO.: 519-748-5397

CHEMICAL FORMULA: HCL
MOLECULAR WEIGHT: 36.46 (HCL)
CHEMICAL FAMILY: MINERAL ACID
MATERIAL USE: N/A
EMERGENCY PHONE NO: 1-800 265-6535

Section 02: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	%	Exposure Limit	C.A.S.#	LD/50, Route,Species	LC/50 Route,Species
HYDROGEN CHLORIDE	1-31.4	SEE SECTION 11	7647-01-0	SEE SECTION 11	SEE SECTION 11
*** AS PER BE (BAUME) / % ***					

Section 03: HAZARDS IDENTIFICATION

ROUTE OF ENTRY: SKIN CONTACT.....	CAUSES CHEMICAL BURNS. CAN CAUSE DERMATITIS. REPEATED CONTACT CAN CAUSE ULCERATION.
SKIN ABSORPTION..... EYE CONTACT.....	N/A CORROSIVE. CONTACT OF LIQUID WILL CAUSE SEVERE BURNS. ULCERATION. DIRECT CONTACT CAN RESULT IN BLINDNESS EVEN AFTER A SHORT EXPOSURE TO SMALL AMOUNTS.
INHALATION	RESPIRATORY IRRITATION, BREATHLESSNESS, COUGHING, CHEST TIGHTNESS AND DIFFICULTY BREATHING. ACID MISTS OR HYDROGEN CHLORIDE VAPOURS ARE SEVERELY IRRITATING TO THE RESPIRATORY TRACT AND MUCOUS MEMBRANES. INHALATION OF SUFFICIENTLY HIGH CONCENTRATIONS MAY RESULT IN LARYNGEAL SPASMS AND/OR EDENA, AND LEAD TO RAPIDLY DEVELOPING PULMONARY EDEMA.
INGESTION	CAUSES SEVERE BURNS OF MOUTH, ESOPHAGUS AND STOMACH. CAUSES SEVERE BURNS OF THE DIGESTIVE TRACT.. MAY BE FATAL IF INGESTED.
EFFECTS OF ACUTE EXPOSURE	REFER TO ROUTE OF ENTRY. MISTS MAY ALSO CAUSE BLEEDING OF THE NOSE AND GUM, ULCERATION OF THE NASAL AND ORAL MUCOSA, AND SEVERE SLIN AND EYE IRRITATION.
EFFECTS OF CHRONIC EXPOSURE	REFER TO ROUTE OF ENTRY. REFER TO ROUTE OF ENTRY.

Section 04: FIRST AID MEASURES

INSTRUCTIONS:	INHALATION: REMOVE FROM AREA TO FRESH AIR. IF BREATHING STOPS, BEGIN ARTIFICIAL RESPIRATION IMMEDIATELY. CONTACT A POISON CONTROL CENTRE, EMERGENCY ROOM OR PHYSICIAN RIGHT AWAY AS FURTHER TREATMENT WILL BE NECESSARY. EYE CONTACT:.. REMOVE CONTACT LENSES. FLUSH EYES GENTLY WITH WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS APART; SEEK IMMEDIATE MEDICAL ATTENTION. IN CASE OF SKIN CONTACT.. FLUSH SKIN WITH PLENTY OF SOAP AND WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. WASH WITH MILD SOAP AND WATER. GET MEDICAL ATTENTION IMMEDIATELY. WASH CONTAMINATED CLOTHING BEFORE REUSE. INGESTION: GENTLY WIPE OR RINSE THE INSIDE OF THE MOUTH WITH WATER. SIPS OF WATER MAY BE GIVEN IF PERSON IS FULLY CONSCIOUS. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON. DO NOT INDUCE VOMITING. CONTACT A POISON CONTROL CENTRE, EMERGENCY ROOM OR PHYSICIAN RIGHT AWAY AS FURTHER TREATMENT WILL BE NECESSARY.
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PRODUCT: DESCALER**FMP CODE: 100-6240****Section 5: FIRE FIGHTING MEASURES**

FLAMMABILITY IF YES, UNDER WHICH CONDITIONS?	SEE FLASH POINT.
EXTINGUISHING MEDIA	CARBON DIOXIDE, DRY CHEMICAL, ALCOHOL FOAM, WATER FOG. USE MEDIA APPROPRIATE FOR SURROUNDING MATERIAL. WATER.
SPECIAL PROCEDURES	WEAR PROTECTIVE CLOTHING AND USE SELF-CONTAINED BREATHING APPARATUS.
FLASH POINT (C), METHOD	>230 F CLOSED CUP-PENSKY-MARTENS. (PENSKY-MARTENS CLOSED CUP).
AUTO IGNITION TEMPERATURE	N/A
UPPER FLAMMABLE LIMIT (% BY VOL.)	N/AP
LOWER FLAMMABLE LIMIT (% BY VOL.)	N/AP
EXPLOSIVE POWER	N/A
RATE OF BURNING	N/A
SENSITIVITY TO STATIC DISCHARGE	N/A
SENSITIVITY TO IMPACT	N/A
SPECIAL FIREFIGHTING PROCEDURES	CONTACT WITH MOST METALS CAN RAPIDLY GENERATE HYDROGEN, WHICH IS EXPLOSIVE.
HAZARDOUS COMBUSTION PRODUCTS	N/A

Section 6: ACCIDENTAL RELEASE MEASURES

LEAK/SPILL	CORROSIVE MATERIAL. WEAR SUITABLE PROTECTIVE CLOTHING AND EYE PROTECTION TO PREVENT SKIN AND EYE CONTACT. USE THE FOLLOWING PROCEDURES: ONLY PERSONNEL EQUIPPED WITH PROPER RESPIRATORY AND EYE/SKIN PROTECTION SHOULD BE PERMITTED IN THE AREA. UNPROTECTED PERSONNEL SHOULD MOVE UPWIND OF SPILL. EVACUATE AND LIMIT ACCESS TO AREA. DILUTE WITH WATER. DIKE AREA TO CONTAIN SPILL. DIKE AND CONTAIN SPILL WITH INERT MATERIAL (SAND, EARTH, ETC.) AND TRANSFER LIQUID AND SOLID SEPARATELY TO CONTAINERS FOR RECOVERY OR DISPOSAL. AFTER ALL VISIBLE TRACES HAVE BEEN REMOVED, FLUSH AREA WITH LARGE AMOUNTS OF WATER. PREVENT RUNOFF INTO DRAINS, SEWERS, AND OTHER WATERWAYS. NEUTRALIZE REMAINDER WITH SODA ASH.
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Section 7: HANDLING AND STORAGE

HANDLING PROCEDURES AND EQUIPMENT	CORROSIVE MATERIAL. WEAR PROTECTIVE EQUIPMENT DURING HANDLING. AVOID CONTACT WITH SKIN, EYES AND CLOTHING. DO NOT TAKE INTERNALLY. AVOID BREATHING MIST OR VAPOUR. USE ADEQUATE VENTILATION. KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME. KEEP AWAY FROM INCOMPATIBLES. KEEP CONTAINERS CLOSED OR SEALED. KEEP CONTAINER CLOSED WHEN NOT IN USE. WHEN DILUTING, SLOWLY ADD ACID TO WATER WHILE STIRRING, NEVER ADD WATER TO ACID. ALWAYS WEAR PROTECTIVE CLOTHING AND WASH THOROUGHLY AFTER HANDLING. EMPTY CONTAINERS RETAIN VAPOUR AND PRODUCT RESIDUE. FOLLOW LABEL WARNINGS EVEN AFTER CONTAINER IS EMPTIED. MAINTAIN A GOOD PERSONAL HYGIENE.
STORAGE NEEDS	KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAMES. KEEP THE CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. STORE AWAY FROM INCOMPATIBLE MATERIALS. STORE IN A COOL AND WELL-VENTILATED AREA.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

GLOVES/ TYPE RESPIRATORY/TYPE	WEAR IMPERVIOUS GLOVES (IN NEOPRENE OR RUBBER). USE NIOSH APPROVED COMBINATION DUST/ MIST AND ACID GAS CARTRIDGE OR CANISTER RESPIRATOR FOR ROUTINE WORK PURPOSES WHEN AIR CONCENTRATIONS EXCEED THE PERMISSIBLE EXPOSURE LIMIT.
EYE/TYPE FOOTWEAR/TYPE CLOTHING/TYPE	CHEMICAL SPLASH GOGGLES AND FACE SHIELD. CHEMICAL RESISTANT BOOTS. WEAR IMPERVIOUS PROTECTIVE CLOTHING. CHEMICAL APRON. WEAR COVERALLS AND/OR CHEMICAL APRON WHERE PHYSICAL CONTACT CAN OCCUR. AVOID CONTACT WITH SKIN.
OTHER/TYPE	EMERGENCY EYE WASH AND SAFETY SHOWERS MUST BE MADE AVAILABLE IN THE IMMEDIATE WORK AREA.
ENGINEERING CONTROLS	VENTILATE ADEQUATELY. USE LOCAL EXHAUST OR GENERAL ROOM/ DILUTION VENTILATION AS APPROPRIATE TO CONTROL EMPLOYEE EXPOSURES IN THE WORK PLACE.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	LIQUID
ODOUR	PUNGENT
ODOUR THRESHOLD	N/A
VAPOUR PRESSURE (MMHG)	N/A.(3), 13 (10), 11 (12), 10 (15), 24 (20), 100 (22), 150 (23)
VAPOUR DENSITY (AIR=1)	(%/BAUME)
EVAPORATION RATE	>1 N/A

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BOILING POINT	AZEOTROPE 108 C (20.2%)
PH	<1.0
SPECIFIC GRAVITY (WATER=1)	1.015 (3), 1.074 (10), 1.074 (12), 1.090 (12), 1.115 (15), 1.16 (20), 1.179 (22), 1.189 (23)..... (%/BAUME)
SOLUBILITY IN WATER (% W/W)	COMPLETE
VOLATILE	100 (VOLUME %)
COEFFICIENT OF WATER/OIL DIST	N/A

Section 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY: YES/NO	YES WHICH CONDITIONS?
COMPATABILITY WITH OTHER SUBSTANCES: YES/NO	CONTACT WITH METALS YES WHICH ONES?
REACTIVITY CONDITIONS?	ALKALIES. COMBUSTIBLE MATERIALS. OXIDIZING AGENTS. REDUCING MATERIALS. CYANIDES, SULPHIDES, FORMALDEHYDE. EXCESSIVE HEAT, SPARKS AND OPEN FLAME. CONTAMINATION OF ANY KIND. IN THE PRESENCE OF OXIDIZING MATERIALS.
HAZARDOUS PRODUCTS OF DECOMPOSITION	FLAMMABLE HYDROGEN GAS

Section 11: TOXICOLOGICAL INFORMATION

EXPOSURE LIMIT OF MATERIAL LC 50 OF MATERIAL, SPECIES & ROUTE	15 MINUTE (STEL), 8-HOUR (TWA) 3124 PPM (RAT) (1 HOUR). SLIGHT TO VERY LOW TOXICITY
LD 50 OF MATERIAL, SPECIES & ROUTE	900 MG/KG (RABBIT). MODERATE TOXICITY. CORROSIVE
CARCINOGENICITY OF MATERIAL	NONE
REPRODUCTIVE EFFECTS	N/A
IRRITANCY OF MATERIAL	SEE SECTION 03. CORROSIVE
SENSITIZING CAPABILITY OF MATERIAL	N/A
SYNERGISTIC MATERIALS	NONE

Section 12: ECOLOGICAL CONSIDERATIONS

NO DATA AVAILABLE.

Section 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL	IN ACCORDANCE WITH MUNICIPAL, PROVINCIAL AND FEDERAL REGULATIONS. EMPTY CONTAINERS SHOULD BE RECYCLED OR DISPOSED OF THROUGH AN APPROVED WASTE MANAGEMENT FACILITY.
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Section 14: TRANSPORT INFORMATION

UN NUMBER	1789
TDG CLASSIFICATION.....	8
PACKING GROUP	II
SPECIAL SHIPPING INSTRUCTIONS	ERAP REQUIRED FOR LARGE MEANS OF CONTAINMENT.

Section 15: REGULATORY INFORMATION

WHMIS CLASSIFICATION	D1A. E.
CPR COMPLIANCE	THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

Section 16: OTHER INFORMATION

DATE PREPARED:	DECEMBER 18, 2011
EXPIRY DATE:	DECEMBER 18, 2014
PREPARED BY:	TECHNICAL DEPARTMENT

N/A= NOT AVAILABLE
N/AP=NOT APPLICABLE