

MATERIAL SAFETY DATA SHEET

NAME OF PRODUCT
LOCK DE-ICER

FILE NO.: 1010615
MSDS DATE:2012/06/15

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: LOCK DE-ICER
SYNONYMS: NON
PRODUCT CODES: 00500V
MANUFACTURER: SHIEUN TA INDUSTRY CO., LTD..
ADDRESS: No.34-12,Lane194,Chung Cheng 3rd Rd,Ying Ko Chen,Taipei Hsien,Taiwan.
EMERGENCY PHONE: 886-2-2670-7931(Taiwan)
PRODUCT USE: LOCK DE-ICER
PREPARED BY: BILL CHENG

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT:

NAME : ISOPROPYL ALCOHOL

CAS NO. : 67-63-0

WEIGHT % : 96.5

OSHA PEL : 400 PPM

ACGIH TLV : 200 PPM

NAME : CARBON DIOXIDE-(CO2)

CAS NO. : 124-38-9

WEIGHT % : TRACE

OSHA PEL : 5000 PPM

ACGIH TLV : 5000 PPM

NAME : WHITE MINERAL OIL

CAS NO. : 8042-47-5

WEIGHT % : 3.5

OSHA PEL : 5 mg/ m³ TWA

ACGIH TLV : 5 mg/ m³ TWA

SECTION 3 : HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW : THIS IS A CONSUMER PRODUCT THAT IS SAFE FOR CONSUMERS AND OTHER USERS UNDER INTENDED AND REASONABLY FORESEEABLE USE.

PRIMARY ROUTES OF ENTRY: EYES, SKIN, INHALATION

SYMPTOMS OF ACUTE OVEREXPOSURE :

EYES : CAUSES SEVERE EYE IRRITATION

SKIN : MAY CAUSE IRRITATION

INGESTION: NOT LIKELY TO OCCUR. IF OCCUR, MAY CAUSE GASTRIC DISTRESS (NAUSEA, VOMITING). MAY PRODUCE NERVOUS SYSTEM EFFECTS SUCH AS FEELING OF WEAKNESS, UNSTEADY WALK, AND DILATION OF BLOOD VESSELS.

INHALATION: MAY IRRITATE MOUTH, NOSE, AND THROAT. CENTRAL NERVOUS SYSTEM DEPRESSION : SYMPTOMS CAN INCLUDE HEADACHE,DIZZINESS, DROWSINESS, SLOWED REACTION TIME, SLURRED SPEECH, AND UNCONSCIOUSNESS.

FLAMMABILITY HAZARDS: DUE TO THE HIGH LEVEL OF ISOPROPANOL IN THIS PRODUCT, IT MUST BE CONSIDERED AS FLAMMABLE. VAPORS OF THIS PRODUCT ARE HEAVIER THAN AIR AND MAY SPREAD LONG DISTANCE; DISTANT IGNITION AND FLASH-BACK ARE POSSIBLE.

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM:

HEALTH HAZARD (BLUE) = 1

FLAMMABILITY HAZARD (RED) = 3

PHYSICAL HAZARD (YELLOW) = 0

SECTION 4 : FIRST AID MEASURES

EYE CONTACT : FLUSH EYES WITH WATER FOR AT LEAST 15 MINUTES, GET MEDICAL ATTENTION PROMPTLY.

SKIN CONTACT : REMOVE CONTAMINATED CLOTHING AND FLUSH SKIN WITH WATER.

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INGESTION : DO NOT INDUCE VOMITING. SLOWLY DILUTE WITH 1-2 GLASSES OF WATER OR MILK AND SEEK MEDICAL ATTENTION. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

INHALATION : REMOVE TO FRESH AIR, GET MEDICAL ATTENTION IF RESPIRATORY IRRITATION DEVELOPS OR IF BREATHING BECOMES DIFFICULT.

SECTION 5 : FIRE-FIGHTING MEASURES

FLASHPOINT: NOT DETERMINED FOR PRODUCT

FOR ISOPROPANOL: 12 °C (53 °F) METHOD : CLOSED CUP.

AUTOIGNITION TEMPERATURE: NOT DETERMINED FOR PRODUCT.

FOR ISOPROPANOL: 399 °C (750 °F)

LOWER (LEL): NOT DETERMINED FOR PRODUCT.

FOR ISOPROPANOL: 2.0%

UPPER (UEL): NOT DETERMINED FOR PRODUCT.

FOR ISOPROPANOL: 12.0%

EXTINGUISHING MEDIA: WATER, DRY CHEMICAL, CARBON DIOXIDE.

SPECIAL FIRE FIGHTING PROCEDURES: SELF-CONTAINED BREATHING APPARATUS (SCBA) MAY BE REQUIRED IF AEROSOLS RUPTURE & CONTENTS ARE SPILLED UNDER FIRE CONDITIONS.

UNUSUAL FIRE AND EXPLOSION HAZARDS: PRESSURIZED AEROSOL CONTAINERS AT ELEVATED TEMPERATURE MAY VENT/RUPTURE/BURST, & ADD TO FLYING/FALLING DEBRIS.

THE MAIN COMPONENT OF THIS PRODUCT, ISOPROPANOL, IS A CLASS IC FLAMMABLE LIQUID. WHEN INVOLVED IN A FIRE, THIS PRODUCT MAY DECOMPOSE AND PRODUCE TOXIC GASES (INCLUDING CARBON MONOXIDE AND CARBON DIOXIDE).

VAPORS OF THIS PRODUCT MAY FORM EXPLOSIVE MIXTURES WITH AIR, AT OR ABOVE 11.7 °C (53°F). THE VAPORS OF THIS PRODUCT ARE HEAVIER THAN AIR AND MAY SPREAD LONG DISTANCES; DISTANT IGNITION AND FLASH-BACK ARE POSSIBLE. VAPORS CAN ACCUMULATE IN CONFINED SPACES, CREATING AN OXYGEN-DEFICIENT ATMOSPHERE AND FLAMMABILITY HAZARD.

SPECIAL FIRE-FIGHTING PROCEDURES:

INCIPIENT FIRE RESPONDERS SHOULD WEAR EYE PROTECTION. STRUCTURAL FIREFIGHTERS MUST WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE EQUIPMENT. MOVE CONTAINERS FROM FIRE AREA IF IT CAN BE DONE WITHOUT RISK TO PERSONNEL. USE WATER SPRAY TO KEEP FIRE-EXPOSED CONTAINERS COOL. IF POSSIBLE, PREVENT RUN-OFF WATER FROM ENTERING STORM DRAINS, BODIES OF WATER, OR OTHER ENVIRONMENTALLY SENSITIVE AREAS.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

SPILL CONTROL : AVOID PERSONAL CONTACT.ELIMINATE IGNITION SOURCES , WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT.

CONTAINMENT : DIKE, CONTAIN AND ABSORB WITH CLAY, SAND OR OTHER SUITABLE MATERIAL.

CLEANUP : FOR LARGE SPILLS BLANKET WITH FIREFIGHTING FOAM OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND, AND OTHER SUITABLE MATERIAL AND DISPOSE PROPERLY.

SPECIAL PROCEDURES : PREVENT SPILL FROM ENTERING DRAINAGE/SEWER SYSTEM, WATERWAY, AND SURFACE WATER. USE NON-SPARKING TOOLS.

SECTION 7 : HANDLING AND STORAGE

HANDLING PRECAUTION : AVOID CONTACT WITH SKIN AND EYES. AVOID BREATHING VAPORS OR MISTS.

LAUNDRY CONTAMINATED CLOTHING. AND PROTECTIVE GEAR BEFORE REUSE.

STORAGE : STORE IN A COOL, DRY, WELL-VENTILATED AREA AWAY FROM HEAT, IGNITION SOURCES, AND DIRECT SUNLIGHT, BELOW 50°C(122°F).

EMPTY CONTAINERS MAY CONTAIN RESIDUAL LIQUID OR VAPORS WHICH ARE FLAMMABLE DO NOT REUSE THE EMPTY CONTAINER. DO NOT PUNCTURE OR INCINERATE THE CONTAINERS.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS

VENTILATION :

GENERAL, LOCAL EXHAUST VENTILATION AS NECESSARY TO CONTROL ANY AIR CONTAMINANTS TO WITHIN THEIR EXPOSURE LIMITS DURING THE USE OF THIS PRODUCT.

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PERSONAL PROTECTIVE EQUIPMENT

EYE AND FACE PROTECTION :

NONE NEEDED UNDER NORMAL USE. IF A HAZARD OF FLYING DEBRIS MAY OCCUR, WEAR SAFETY GLASSES OR GOGGLES IF NECESSARY, REFER TO U.S. OSHA 29 CFR 1910.133, OR APPROPRIATE CANADIAN STANDARDS.

SKIN PROTECTION :

CHEMICAL-RESISTANT GLOVES AND OTHER GEAR AS REQUIRED TO PREVENT SKIN CONTACT.

RESPIRATORY PROTECTION :

A NIOSH/MSHA AIR PURIFYING RESPIRATOR WITH AN ORGANIC VAPOR CARTRIDGE MAY BE PERMISSIBLE, HOWEVER USE A POSITIVE PRESSURE AIR SUPPLIED RESPIRATOR IF THERE IS ANY POTENTIAL FOR UNCONTROLLED RELEASE, OR UNKNOWN EXPOSURE LEVELS.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

THIS PRODUCT IS A COLORLESS, ODORLESS LIQUID IN A PRESSURIZED CAN, WITH CARBON DIOXIDE AS A PROPELLANT. THE FOLLOWING VALUES ARE FOR THE MAIN COMPONENT, ISOPROPANOL.

APPEARANCE: CLEAR LIQUID

ODOR: ALCOHOL ODOR

SPECIFIC GRAVITY : 0.786

PH AS SUPPLIED: N/A

BOILING POINT(°F) : 180 (AT 760 mm Hg.)

FREEZING POINT(°F) : -127

VAPOR PRESSURE (mm Hg): 33 (AT 68 °F)

VAPOR DENSITY(AIR=1) : 2.1

VOLATILES BY VOLUME : > 95 %

EVAPORATION RATE(n-BUTYL ACETATE=1) : 1.5

SOLUBILITY IN WATER : MISCIBLE

SECTION 10: STABILITY AND REACTIVITY

STABILITY: YES

CONDITIONS TO AVOID (STABILITY): NORMALLY STABLE. AVOID EXPOSING CONTAINER TO EXTREMELY HIGH TEMPERATURES, WHICH COULD CAUSE THE CONTAINER TO BURST.

INCOMPATIBILITY (MATERIAL TO AVOID): STRONG OXIDIZERS, ALUMINUM METALS, NITROFORM, SULFURIC ACID.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: IF EXPOSED TO FIRE, THIS PRODUCT MAY DECOMPOSE, YIELDING TOXIC PRODUCTS. (E.G., CARBON OXIDES)

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID : EXTREME TEMPERATURES, INCOMPATIBLE MATERIALS.

SECTION 11: TOXICOLOGICAL INFORMATION

EYE : SEVERE IRRITATE.

CARCINOGENICITY, TERTOGENICITY AND MUTAGENICITY :

IN RESPONSE TO A TSCA TEST RULE, SEVERAL STUDIES OF IPA (ISOPROPYL ALCOHOL) HAVE NOW BEEN COMPLETED. THE STUDIES AND THERE ARE AS FOLLOWS: 1- BOTH MUTAGENICITY STUDIES, THE MOUSE MICRONUCLEUS AND CHO ASSAYS, WERE NEGATIVE. 2- RAT AND RABBIT ORAL TERATOGENICITY AND DEVELOPMENTAL TOXICOLOGY : (A) THERE WAS NO EVIDENCE THAT IPA CAUSED TERTOBENICITY IN RATS OR RABBITS. (B) DEVELOPMENTAL TOXICITY WAS DEEN IN RATS AT 1200 mg/kg (EVIDENCE BY BODY WEIGHT) WHILE NO DEVELOPMENTAL TOXICITY WAS SEEN IN THE RABBITS STUDY. FOR RATS, THE NOAEL WAS 400 mg/kg ; FOR RABBITS 480 mg/kg. THIS WORK ALSO IDENTIFIED PREGNANT RABBITS TO BE APPROXIMATELY EIGHT TIMES MORE SENSITIVE TO IPA'S LETHAL EFFECTS THAN NON-PERGNANT RABBITS.

OTHER CHRONIC EFFECTS : IN RAT INHALATION NEUROTOXICITY AND ORAL DEVELOPMENTAL NEUROTOXICITY STUDIES, THERE WAS NO EVIDENCE THAT IPA CAUSED NEUROTOXICITY IN ADULTS (MAX DOES 5000 PPM) OR OFFSPRING (MAX DOSE 1200 PPM).

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: NOT AVAILABLE

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

US EPA WASTE NUMBER : D001.

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SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

THIS PRODUCT IS CLASSIFIED (PER 49 CFR 172.101) BY THE U.S. DEPARTMENT OF TRANSPORTATION, AS FOLLOWS :

PROPER SHIPPING NAME: CONSUMER COMMODITY,

HAZARD CLASS: ORM-D

UN IDENTIFICATION NUMBER: NOT APPLICABLE.

PACKING GROUP: NOT APPLICABLE

DOT LABEL(S) REQUIRED: NONE

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (2000): 171

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:

PROPER SHIPPING NAME: CONSUMER COMMODITY (ISOPROPANOL)

HAZARD CLASS NUMBER : CLASS 2.1

UN IDENTIFICATION NUMBER: UN 1950

PACKING GROUP: NOT APPLICABLE

HAZARD LABEL(S) REQUIRED: CLASS 2.1

MARINE POLLUTANT: NOT APPLICABLE

SPECIAL PROVISIONS: 80

EXPLOSIVE LIMIT & LIMITED QUANTITY INDEX: 1

ERAP INDEX: NONE

PASSENGER CARRYING SHIP INDEX: NONE

PASSENGER CARRYING ROAD OR RAIL VEHICLE INDEX: 75

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA):

THIS PRODUCT IS CONSIDERED AS DANGEROUS GOODS UNDER THE RULES OF IATA.

PROPER SHIPPING NAME: CONSUMER COMMODITY

HAZARD CLASS NUMBER AND DESCRIPTION: 9 (MISCELLANEOUS HAZARDOUS MATERIAL)

UN IDENTIFICATION NUMBER: UN 8000

PACKING GROUP: NOT APPLICABLE

HAZARD LABEL(S) REQUIRED: CLASS 9 (MISCELLANEOUS)

PASSENGER & CARGO AIRCRAFT PACKING INSTRUCTION: 910

PASSENGER & CARGO AIRCRAFT MAXIMUM NET QUANTITY/PKG: 25 KG

CARGO AIRCRAFT ONLY PACKING INSTRUCTION: 910

CARGO AIRCRAFT ONLY MAXIMUM NET QUANTITY/PKG: 25 KG

SPECIAL PROVISIONS: A112

ERG CODE: 9L

INTERNATIONAL MARITIME ORGANIZATION (IMO):

THIS PRODUCT IS CLASSIFIED AS FOLLOWS, PER RULES OF THE IMO.

UN IDENTIFICATION NUMBER: UN 1950

PROPER SHIPPING NAME: AEROSOLS

CLASS: 2

SUBSIDIARY RISK: NONE

PACKING GROUP: NOT APPLICABLE

SPECIAL PROVISIONS: 63, 190, 191, 277, 913

HAZARD LABEL(S) REQUIRED: CLASS 2.1

LIMITED QUANTITIES: SEE SP 277

PACKING INSTRUCTION: P003

EMS: F-D, S-U

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS :

TSCA:

ALL INGREDIENTS OF THIS PRODUCT ARE LISTED, OR ARE EXEMPT FROM LISTING ON THE TSCA INVENTORY. EXPORT NOTIFICATION IS REQUIRED UNDER TSCA SEC. 12-B.

THE FOLLOWING RCRA CODES APPLIES TO THIS MATERIAL IF IT BECOMES WASTE : D001

REGULATORY STATUS OF HAZAROUS CHEMICAL CONSTITUENTS OF THIS PRODUCT :

INGREDIENT	EXTREMELY HAZARDOUS*	TOXIC CHEMICAL**	CERCLA RQ (LBS)	12B EXPORT NOTIFICATION
ISOPROPYL ALCOHOL 67-63-0	NO	NO	0.0	REQUIRED
CARBON DIOXIDE	NO	NO	0.0	NOT REQUIRED

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124-38-9				
WHITE MINERAL OIL 8042-47-5	NO	NO	0.0	NOT REQUIRED

*Consult the appropriate regulations for emergency planning and release reporting requirements for substances on the SARA Section 301 Extremely Hazardous Substance List.

**Substances for which the "Toxic Chemical" column is marked "Yes" are on the SARA Section 313 list of Toxic Chemicals, for which release reporting may be required. For specific requirements, consult the appropriate regulations.

FOR PURPOSES OF SARA SECTION 312 HAZARDOUS METARIALS INVENTORY REPORTING, THE FOLLOWING HAZARD CLAEESE APPLY TO THIS MATERIAL : IMMEDIATE HEALTH HAZARD, FIRE HAZARD, SUDDEN RELEASE OF PRESURE HAZARD.

CANADIAN REGULATIONS :

CANADIAN DSL/NDL INVENTORY STATUS: THE COMPONENT OF THIS PRODUCT IS ON THE DSL INVENTORY.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:

THE COMPONENTS OF THIS PRODUCT ARE NOT ON THE CEPA FIRST PRIORITIES SUBSTANCE LISTS.

CANADIAN WHMIS CLASSIFICATION AND SYMBOLS:

CLASS A: COMPRESSED GAS

CLASS B5: FLAMMABLE AEROSOLS

CLASS D2B: SKIN OR EYE IRRITATION

SECTION 16: OTHER INFORMATION

USER'S RESPONSIBILITY : A BULLETIN SUCH AS THIS CANNOT BE EXPECTED TO COVER ALL POSSIBLE INDIVIDUAL SITUATIONS. AS THE USER HAS THE RESPONSIBILITY TO PROVIDE A SAFE WORKPLACE, ALL ASPECTS OF AN INDIVIDUAL OPERATION SHOULD BE EXAMINED TO DETERMINE IF, OR WHERE, PRECAUTIONS (IN ADDITION TO THOSE DESCRIBED HEREIN) ARE REQUIRED. ANY HEALTH HAZARD AND SAFETY INFORMATIN CONTAINED HEREIN SHOULD BE PASSED ON TO YOUR CUSTOMERS OR EMPLOYEES, AS THE CASE MAY BE.

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