

MATERIAL SAFETY DATA SHEET



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IG-LO DE-ICER

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THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

Product Name: IG-LO DE-ICER

AUTO-PRO AUTOMOTIVE SALE
 3908 HOPKINS RD.

08 70 000 0769000-000

Date Sheet No: 0177148-007
 Prepared: 11/20/90
 Supersedes: 05/31/89

RICHMOND VA 23234

PRODUCT: 8001103D
 INVOICE: 822719
 INVOICE DATE: 02/29/92
 TO:

ATTN: PLANT MGR / SAFETY DIR.

SECTION I - PRODUCT IDENTIFICATION

General or Comario ID: SOLVENT BLEND

DOT Hazard Classification: FLAMMABLE GAS (173.500)

SECTION II - COMPONENTS

THE COMPOSITION OF THIS PRODUCT IS BEING WITHHELD AS A TRADE SECRET.

IF PRESENT, IARC, NTP AND OSHA CARCINOGENS AND CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III SECTION 313 ARE IDENTIFIED IN THIS SECTION. SEE DEFINITION PAGE FOR CLARIFICATION

INGREDIENT	% (by WT)	PEL	TLV	Note
CARBON DIOXIDE CAS #: 124-38-9	1-10	10000 PPM	5000 PPM	(1)
METHYL ALCOHOL CAS #: 67-56-1	55-70	200 PPM - SKIN	200 PPM - SKIN	(2)
ETHYLENE GLYCOL CAS #: 107-21-1	5-10	50 PPM - CEILING	50 PPM - CEILING	(3)

Notes:

- (1) ACGIH/OSHA SHORT TERM EXPOSURE LIMIT (STEL) FOR CARBON DIOXIDE IS 30,000 PPM.
- (2) SKIN ABSORPTION MAY CONTRIBUTE TO TO THE OVERALL ABSORPTION OF THIS MATERIAL. APPROPRIATE MEASURES SHOULD BE TAKEN TO PREVENT ABSORPTION SO THAT THE TLV IS NOT INVALIDATED.
 OSHA/ACGIH SHORT TERM EXPOSURE LIMIT (STEL) FOR METHYL ALCOHOL IS 250 PPM. NIOSH RECOMMENDS A LIMIT OF 200 PPM, 8-HOUR TWA; 800 PPM 15-MINUTE CEILING.
- (3) THIS CHEMICAL IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF SARA TITLE III.
- (3) THIS CHEMICAL IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF SARA TITLE III.

SECTION III - PHYSICAL DATA

Bailling Point	for COMPONENT(55-70%)	1 147.00 Deg F 2 63.88 Deg C 3 760.00 mm Hg
Vapor Pressure	for COMPONENT(55-70%)	3 97.65 mm Hg 4 68.80 Deg F 5 20.00 Deg C
Specific Vapor Density		HEAVIER THAN AIR
Specific Gravity		.830 - .840 6 70.00 Deg F 7 21.11 Deg C
Percent Volatiles		85-100%
Evaporation Rate		SLOWER THAN ETHER
Appearance		CLEAR
State		LIGUID
Form		HOMOGENEOUS SOLUTION

SECTION IV - FIRE AND EXPLOSION INFORMATION

FLASH POINT(TCC) 69.0 Deg F (20.6 Deg C)
 EXPLOSIVE LIMIT (LOWEST VALUE OF COMPONENT) LOWER - 2.2%
 EXTINGUISHING MEDIA: ALCOHOL FOAM OR WATER FOG
 HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM TOXIC MATERIALS: CARBON DIOXIDE AND CARBON MONOXIDE, ETC.
 FIREFIGHTING PROCEDURES: NEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN THE POSITIVE PRESSURE DEMAND MODE WHEN FIGHTING FIRES.
 SPECIAL FIRE & EXPLOSION HAZARDS: NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE

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 1-800-ASHLAND

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SECTION IV - FIRE AND EXPLOSION INFORMATION (Continued)

PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.

VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND IGNITED BY HEAT, PILOT LIGHTS, OTHER FLAMES AND IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT.

HFA CODES: HEALTH- 1 FLAMMABILITY- 3 REACTIVITY- 0

SECTION V - HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL: NOT ESTABLISHED FOR PRODUCT. SEE SECTION II.

EFFECTS OF ACUTE OVEREXPOSURE:

EYES - CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, BLURRED VISION.
 SKIN - PROLONGED OR REPEATED CONTACT CAN CAUSE MODERATE IRRITATION, DEFATTING, DERMATITIS.
 BREATHING - EXCESSIVE INHALATION OF VAPORS CAN CAUSE NASAL AND RESPIRATORY IRRITATION, CENTRAL NERVOUS SYSTEM EFFECTS INCLUDING DIZZINESS, HEARNESS, FATIGUE, NAUSEA, HEADACHE AND POSSIBLE UNCONSCIOUSNESS, AND EVEN SHALLOWING - CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, DIARRHEA, BLINDNESS AND DEATH.

FIRST AID:

IF ON SKIN: THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. LAUNDRER CONTAMINATED CLOTHING BEFORE RE-USE.

REMOVE CONTAMINATED SHOES PROMPTLY. DISCARD SHOES SATURATED WITH THIS PRODUCT.

IF IN EYES: FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING UPPER AND LOWER LIDS OCCASIONALLY, GET MEDICAL ATTENTION.

IF SWALLOWED: IMMEDIATELY DRINK TWO GLASSES OF WATER AND INDUCE VOMITING BY EITHER GIVING IPECAC SYRUP OR BY PLACING FINGER AT BACK OF THROAT. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION IMMEDIATELY.

NOTE TO PHYSICIANS: THIS PRODUCT CONTAINS ETHYLENE GLYCOL. ETHANOL REDUCES THE METABOLISM OF ETHYLENE GLYCOL TO TOXIC METABOLITES. ETHANOL SHOULD BE ADMINISTERED AS SOON AS POSSIBLE IN CASES OF SEVERE POISONING SINCE THE ELIMINATION HALF-LIFE OF ETHYLENE GLYCOL IS 3 HOURS. IF MEDICAL CARE WILL BE DELAYED SEVERAL HOURS, USE THREE TO FOUR 1-OUNCE ORAL SPOONS OF 40-PROOF WHISKEY BEFORE OR DURING TRANSPORT TO THE HOSPITAL. HEMODIALYSIS EFFECTIVELY REMOVES ETHYLENE GLYCOL AND ITS METABOLITES FROM THE BODY.

NOTE TO PHYSICIANS: THIS PRODUCT CONTAINS METHANOL. METHANOL IS METABOLIZED TO FORMALDEHYDE AND FORMIC ACID. THESE METABOLITES MAY CAUSE METABOLIC ACIDOSIS, VISUAL DISTURBANCES AND BLINDNESS. SINCE METABOLISM IS REQUIRED FOR THESE TOXIC SYMPTOMS, THEIR ONSET MAY BE DELAYED FROM 4 TO 30 HOURS FOLLOWING INGESTION. ETHANOL COMPETES FOR THE SAME METABOLIC PATHWAY AND HAS BEEN USED AS AN ANTIDOTE. METHANOL IS EFFECTIVELY REMOVED BY HEMODIALYSIS.

IF BREATHED: IF AFFECTED, REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED GIVE ARTIFICIAL RESPIRATION. KEEP PERSON WARM, QUIET AND GET MEDICAL ATTENTION.

PRIMARY ROUTE(S) OF ENTRY:

INHALATION, SKIN ABSORPTION, SKIN CONTACT

EFFECTS OF CHRONIC OVEREXPOSURE:

ETHYLENE GLYCOL HAS BEEN SHOWN TO PRODUCE DOSE-RELATED TERATOGENIC EFFECTS IN RATS AND MICE WHEN GIVEN BY GAVAGE OR IN DRINKING WATER AT HIGH CONCENTRATIONS. WHILE THERE IS NO CURRENTLY AVAILABLE INFORMATION TO SUGGEST THAT ETHYLENE GLYCOL HAS CAUSED BIRTH DEFECTS IN HUMANS IT IS RECOMMENDED THAT EVERY EFFORT SHOULD BE MADE TO PREVENT THE INGESTION OF ANY ETHYLENE GLYCOL AND TO KEEP PERSONNEL EXPOSURE BELOW THE ACGIH TLV.

OVEREXPOSURE TO THIS MATERIAL (OR ITS COMPONENTS) HAS APPARENTLY BEEN FOUND TO CAUSE THE FOLLOWING EFFECTS IN LABORATORY ANIMALS: KIDNEY DAMAGE, LIVER ABNORMALITIES, EYE DAMAGE, LUNG DAMAGE, BRAIN DAMAGE, NERVOUS SYSTEM DAMAGE, SPLEEN DAMAGE

SECTION VI - REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR

STABILITY: STABLE

INCOMPATIBILITY: AVOID CONTACT WITH: STRONG OXIDIZING AGENTS

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILL: ABSORB LIQUID ON VERMICULITE, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND TRANSFER TO HOOD.

LARGE SPILL: ELIMINATE ALL IGNITION SOURCES (FLAMES, FLAMES INCLUDING PILOT LIGHTS, ELECTRICAL SPARKS). PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE. PREVENT FROM ENTERING DRAINS AND SEWERS. DAM AND DIKE TO PREVENT SPREADING. IF RUNOFF OCCURS, NOTIFY PROPER AUTHORITIES AS REQUIRED. PUMP OR VACUUM TRANSFER SPILLED PRODUCT TO CLEAN CONTAINERS FOR RECOVERY. ABSORB UNRECOVERABLE PRODUCT. TRANSFER CONTAMINATED ABSORBENT, SOIL AND OTHER MATERIALS TO CONTAINERS FOR DISPOSAL.

PREVENT RUN-OFF TO SEWERS, STREAMS OR OTHER BODIES OF WATER. IF RUN-OFF OCCURS, NOTIFY PROPER AUTHORITIES AS REQUIRED, THAT A SPILL HAS OCCURRED.

WASTE DISPOSAL METHOD:

SMALL SPILL: ALLOW VOLATILE PORTION TO EVAPORATE IN HOOD. ALLOW SUFFICIENT TIME FOR VAPORS TO COMPLETELY CLEAR HOOD DUCT WORK. DISPOSE OF REMAINING MATERIAL IN ACCORDANCE WITH APPLICABLE REGULATIONS.

ROE SPILL: DESTROY BY LIQUID INCINERATION.

DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

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~~SECTION V--PROTECTIVE EQUIPMENT TO BE USED~~

- RESPIRATORY PROTECTION: NOT REQUIRED UNDER NORMAL CONDITIONS OF USE.
- VENTILATION: NOT REQUIRED UNDER NORMAL CONDITIONS OF USE.
- PROTECTIVE GLOVES: NOT REQUIRED UNDER NORMAL CONDITIONS OF USE.
- EYE PROTECTION: NOT REQUIRED UNDER NORMAL CONDITIONS OF USE.
- OTHER PROTECTIVE EQUIPMENT: NOT REQUIRED UNDER NORMAL CONDITIONS OF USE.

~~SECTION SIX--SPECIAL PRECAUTIONS FOR OTHER COMMENTS~~

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED, SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THIS DATASHEET MUST BE OBSERVED.

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.