

MATERIAL SAFETY DATA SHEET

IDENTITY: 900150 DEVELOPER

Date Prepared: 12-19-06

Manufacturer: Autoroll Print Technologies
11 River Street
Middleton, MA 01949

Telephone # (978)777-2160 Emergency # (800)424-9300 Chemtrec

SECTION I – PRODUCT INFORMATION

General of Generic ID : **DENATURED ALCOHOL**

DOT Hazard Classification: FLAMMABLE LIQUID (173.115)

SECTION II – COMPONENTS

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

| INGREDIENTS | % (by Vol.) | PEL | TLV | Note |
|---|--------------------|------------|------------|-------------|
| ETHYL ALCOHOL CAS# 64-17-5 | 73 | 1000PPM | 1000PPM | |
| METHYL ALCOHOL CAS# 67-56-1 | 3 | 200PPM | 200PPM | (1) |
| METHYL ISOBUTYL KETONE CAS# 108-10-1 | 2 | 50PPM | 50PPM | (2) |
| WATER CAS# 7732-18-5 | 19-25 | | | |

NOTES:

1. SKIN ABSORPTION MAY POTENTIALLY CONTRIBUTE TO THE OVERALL EXPOSURE TO 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 250PPM. NIOSH RECOMMENDS A LIMIT OF 200PPM, 8-HOUR TWA; 800PPM 15-MINUTE CEILING. THIS CHEMICAL IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF SARA TITLE III.
2. OSHA/ACGIH SHORT TERM EXPOSURE LIMIT (STEL) FOR METHYL ISOBUTYL KETONE IS 75PPM. NIOSH RECOMMENDS A LIMIT OF 50PPM, 8-HOUR TWA. THIS CHEMICAL IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 SARA TITLE III.

SECTION III – PHYSICAL DATA

| | | |
|--------------------------------------|-------------|--|
| BOILING POINT | FOR PRODUCT | 176.00 DEG. F (80.00 DEG. C) @ 760.00 MMHG |
| VAPOR PRESSURE | FOR PRODUCT | 46.00 MM HG. @68 DEG. F (20.00 DEG. C) |
| SPECIFIC VAPOR DENSITY | AIR=1 | 1.6 |
| SPECIFIC GRAVITY | | .813 |
| | | @60.00 DEG. F (15.55 DEG. C) |
| PERCENT VOLATILE | | 100% |
| EVAPORATION RATE (N-BUTYL ACETATE=1) | | 1.70 |

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SECTION IV – FIRE AND EXPLOSION INFORMATION

FLASH POINT J(TCC) 57.0 DEG. F (13.9 DEG. C)

EXPLOSIVE LIMIT (PRODUCT) LOWER -3.3% UPPER 21.1%

EXTINGUISHING MEDIA: ALCOHOL FOAM OR CARBON DIOXIDE OR DRY CHEMICAL.

HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM TOXIC MATERIAL, CARBON DIOXIDE AND CARBON MONOXIDE, ETC.

FIRE FIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACE PIECE 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 PRODUCT (EVEN RESIDUE) CAN IGNITE EXPLOSIVELY. VAPOR IS HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR MAY BE MOVED BY VENTILATION AND IGNITED BY PILOT LIGHTS, OTHER FLAMES, SPARKS, HEATERS, SMOKING, ELECTRIC MOTORS, STATIC DISCHARGE, OR OTHER IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT. ALL FIVE GALLON PAILS AND LARGER METAL CONTAINERS INCLUDING TANK CARS AND TANK TRUCKS SHOULD BE GROUNDED AND OR BONDED WHEN MATERIAL IS TRANSFERRED.

NFPA CODES: HEALTH – 0 FLAMMABILITY – 3 REACTIVITY – 0

SECTION V – HEALTH AND HAZARD DATA

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

EFFECTS OF ACUTE EXPOSURE:

EYES - CAN CAUSE MODERATE IRRITATION, REDNESS, TEARING

SKIN - CAN CAUSE SLIGHT IRRITATION

BREATHING - EXCESSIVE INHALATION OF VAPORS CAN CAUSE NASAL AND RESPIRATORY IRRITATION, AND CENTRAL NERVOUS SYSTEM EFFECTS INCLUDING DIZZINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE AND POSSIBLE UNCONSCIOUSNESS

SWALLOWING - CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING AND DIARRHEA

FIRST AID:

IF ON SKIN: THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. LAUNDRY CONTAMINATED CLOTHING BEFORE REUSE.

IF IN THE 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 METHANOL. METHANOL IS METABOLIZED TO FORMALDEHYDE AND FORMIC ACID. THESE METABOLITES CAUSE METABOLIC ACIDOSIS, VISUAL DISTURBANCES AND BLINDNESS. SINCE METABOLISM IS REQUIRED FOR THESE TOXIC SYMPTOMS, THEIR ONSET MAY BE DELAYED FROM 6 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.

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SECTION V – HEALTH HAZARD DATA CONTINUED

PRIMARY ROUTE(S) OF ENTRY: INHALATION, SKIN ABSORPTION, SKIN CONTACT

EFFECTS OF CHRONIC OVEREXPOSURE: THIS PRODUCT CONTAINS ETHANOL. IARC (INTERNATIONAL AGENCY FOR RESEARCH FOR CANCER) HAS DETERMINED THAT CHRONIC EXPOSURE TO ETHANOL THROUGH HUMAN CONSUMPTION VIA THE DRINKING OF ALCOHOLIC BEVERAGES OVER TIME CAN CAUSE CANCER. THE RELEVANCE OF THIS FINDING TO ETHANOL EXPOSURE IN INDUSTRIAL ENVIRONMENTS IS UNCERTAIN.

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

OVEREXPOSURE TO THIS MATERIAL (OR ITS COMPONENTS) HAS BEEN SUGGESTED AS A CAUSE OF THE FOLLOWING EFFECTS IN HUMANS: LIVER ABNORMALITIES, EYE DAMAGE

SECTION VI – REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CAN NOT 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 PAPER, VERMICULITE, FLOOR ABSORBENT OR OTHER ABSORBENT MATERIAL AND TRANSFER TO HOOD.

LARGE SPILL: ELIMINATE ALL IGNITION SOURCES (FLARES, 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 AND DIKE AREA OF SPILL TO PREVENT SPREADING. PUMP LIQUID TO SALVAGE TANK. ANY REMAINING LIQUID MAY BE TAKEN UP WITH SAND, CLAY, EARTH, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND SHOVELED INTO CONTAINERS.

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

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

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SECTION VIII – PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION: IF WORKPLACE EXPOSURE LIMIT(S) OF PRODUCT OR ANY COMPONENT IS EXCEEDED (SEE SECTION II), A NIOSH/MSHA APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS (NEGATIVE PRESSURE TYPE) UNDER SPECIFIED CONDITIONS (SEE YOUR SAFETY EQUIPMENT SUPPLIER). ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

VENTILATION: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES: WEAR RESISTANT GLOVES SUCH AS NEOPRENE.

EYE PROTECTION: CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED. HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES (CONSULT YOUR SAFETY EQUIPMENT SUPPLIER).

OTHER PROTECTIVE EQUIPMENT: TO PREVENT REPEATED OR PROLONGED SKIN CONTACT, WEAR IMPERVIOUS CLOTHING AND BOOTS.

SECTION IX – SPECIAL PRECAUTIONS OR 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 DATA SHEET 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.