

MATERIAL SAFETY  
DATA SHEET

VALVOLINE OIL COMPANY  
DIVISION OF ASHLAND OIL, INC.  
P.O. BOX 391  
ASHLAND, KENTUCKY 41114  
(606) 329-3333

24-HOUR  
EMERGENCY  
TELEPHONE  
(606) 324-1133

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THERMO-AID <sup>25</sup> DRY GAS

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

PRODUCT NAME: THERMO-AID

NAPA-DETROIT  
R&F AUTO SUPPLY

PO BOX 489

TAYLOR

MI 48180

ATTN: PLANT MGR / SAFETY DIR.

08 70 000 0862919-008  
DATA SHEET NO: 0199342-001  
LATEST REVISION DATE: 01/87-87814  
PRODUCT: 00007100  
INVOICE: 051524  
INVOICE DATE: 07/08/86  
TO:

1100 STARKWEATHER

PLYMOUTH

MI 48170

## SECTION I-PRODUCT IDENTIFICATION

GENERAL OR GENERIC ID: SOLVENT BLEND

DOT HAZARD CLASSIFICATION: FLAMMABLE LIQUID (173.115)

## SECTION II-COMPONENTS

IF PRESENT, IARC, NTP AND OSHA CARCINOGENS ARE IDENTIFIED IN THIS SECTION  
SEE DEFINITION PAGE FOR CLARIFICATION

## INGREDIENT

X (BY VOL)

NOTE

## ISOPROPANOL

CAS #: 67-63-0

PEL: 400 PPM

MS-100

TLV: 400 PPM

(1)

(1): ACGIH - SHORT TERM EXPOSURE LIMIT (STEL) FOR ISOPROPYL ALCOHOL IS 500 PPM.  
NIOSH RECOMMENDS A LIMIT OF 400 PPM, 8-HOUR TWA, 500 PPM - CEILING.

THE SPECIFIC CHEMICAL IDENTITY HAS BEEN WITHHELD AS A TRADE SECRET.

## SECTION III-PHYSICAL DATA

| PROPERTY               | REFINEMENT  | MEASUREMENT                                   |
|------------------------|-------------|-----------------------------------------------|
| BOILING POINT          | FOR PRODUCT | ( 180.00 DEG F<br>82.22 DEG C)<br>760.00 MMHG |
| VAPOR PRESSURE         | FOR PRODUCT | ( 33.00 MMHG<br>68.00 DEG F<br>20.00 DEG C)   |
| SPECIFIC VAPOR DENSITY | AIR = 1     | 2.0                                           |
| SPECIFIC GRAVITY       |             | .783<br>77.00 DEG F<br>25.00 DEG C            |
| PERCENT VOLATILES      |             | 100.00%                                       |
| EVAPORATION RATE       | ( = 1)      | 7.70                                          |
| APPEARANCE             |             | CLEAR                                         |
| STATE                  |             | LIQUID                                        |
| FORM                   |             | HOMOGENEOUS SOLN                              |

## SECTION IV-FIRE AND EXPLOSION INFORMATION

FLASH POINT(TCC )

53.0 DEG F  
( 11.7 DEG C)

EXPLOSIVE LIMIT (PRODUCT)

LOWER - 2.0%

EXTINGUISHING MEDIA: ALCOHOL FOAM OR CARBON DIOXIDE OR DRY CHEMICAL

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

FIREFIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE WHEN FIGHTING FIRES.

SPECIAL FIRE &amp; EXPLOSION HAZARDS: NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.

VAPORS ARE 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 SHOULD BE GROUNDED AND/OR BONDED WHEN MATERIAL IS TRANSFERRED.

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

## SECTION V-HEALTH HAZARD DATA

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**SECTION V-HEALTH HAZARD DATA (CONTINUED)**
**EFFECTS OF ACUTE OVEREXPOSURE; FOR COMPONENT**

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, DIZZINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE, POSSIBLE UNCONSCIOUSNESS, AND EVEN ASPHYXIATION.  
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 RE-USE.

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.

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 CONTACT

**EFFECTS OF CHRONIC OVEREXPOSURE; FOR COMPONENT**

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

OVEREXPOSURE TO THIS MATERIAL (OR ITS COMPONENTS) HAS BEEN SUGGESTED AS A CAUSE OF THE FOLLOWING EFFECTS IN HUMANS: KIDNEY 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: ELIMINATE ALL SOURCES OF IGNITION SUCH AS FLARES, FLAMES (INCLUDING PILOT LIGHTS), AND ELECTRICAL SPARKS.  
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, DIKE AREA OF SPILL TO PREVENT SPREADING, PUMP LIQUID TO SALVAGE TANK. REMAINING LIQUID MAY BE TAKEN UP ON 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. CONTAMINATED ABSORBENT MAY BE DEPOSITED IN A LANDFILL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

**SECTION VIII-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.

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## 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 THE 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.