MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet conforms to the requirements of ANSI Z400.1, using the International Chemical Safety Cards of the Global Harmonizing System.

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

IMPORTANT: Read this MSDS before handling & disposing of this product. Pass this information on to employees, customers, & users of this product.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

PRODUCT IDENTITY: VANZOL A-1 200 AND 190 PROOF

COMPANY IDENTITY: UNIVAR USA INC.
COMPANY ADDRESS: 17425 NE UNION HILL
COMPANY CITY: REDMOND, WA 98052
COMPANY PHONE: 1-425-889-3400
CHEMTREC PHONE: 1-800-424-9300

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

CONTAINS:
75-85% ETHANOL (64-17-5)(200-578-6),
0-10% ISOPROPAOL (67-63-0)(200-661-7),
0-10% WATER (7732-18-5),
0- 5% METHANOL (67-56-1)(200-659-6),
0- 1% METHYL ISOBUTYL KETONE (108-10-1)(203-550-1)

Number in parentheses is CAS #, number in brackets is European EC #.

SECTION 3. HAZARDS IDENTIFICATION

EXPOSURE PREVENTION: PREVENT DISPERSION OF MISTS OR DUST!
AVOID EXPOSURE OF ADOLESCENTS, CHILDREN!
UNIVAR USA INC.
ISSUE DATE:2008-12-01
MSDS NO:CDS1199
VERSION:001 2008-12-01

RISK STATEMENTS:
R36/37/38        Irritating to eyes, respiratory system and skin.
R39/23/24/25     Toxic: danger of very serious irreversible effects
                 through inhalation, in contact with skin and if swallowed.
R11              Highly Flammable.
R20              Harmful by inhalation.
R41              Risk of serious damage to eyes.
R66              Repeated exposure may cause skin dryness or cracking.
R67              Vapors may cause drowsiness and dizziness.

SAFETY STATEMENTS:
S24/25           Avoid contact with skin and eyes.
S7/9             Keep container tightly closed, in a well-ventilated place.
S16              Keep away from sources of ignition. No smoking.
S26              In case of contact with eyes, rinse immediately with
                 plenty of water and seek medical advice.
S29              Do not empty into drains.
S45              In case of accident, or if you feel unwell, seek medical
                 advice immediately. (Show the label where possible).

SECTION 4. FIRST AID MEASURES

EYE CONTACT:
For eyes, flush with plenty of water for 15 minutes & get medical attention.

SKIN CONTACT:
In case of contact with skin immediately remove contaminated clothing.
Wash thoroughly with soap & water. Wash contaminated clothing before reuse.

INHALATION:
After high vapor exposure, remove to fresh air. If breathing is difficult,
give oxygen. If breathing has stopped, trained personnel should immediately
begin artificial respiration. If the heart has stopped, trained personnel
should immediately begin cardiopulmonary resuscitation (CPR).

SWALLOWING:
Induce vomiting. GET MEDICAL ATTENTION IMMEDIATELY.
If no medical personnel are available & patient is conscious, ingestion of an
alcoholic beverage may prevent blindness, death. Do NOT induce vomiting to an
unconscious or convulsing person.

SECTION 5. FIRE FIGHTING MEASURES

FIRE & EXPLOSION PREVENTIVE MEASURES
NO open flames, NO sparks, & NO smoking. NO contact with oxidants.
Above flash point, use a closed system, ventilation,
explosion-proof electrical equipment, lighting.
Do NOT use compressed air for filling, discharging, or handling.

EXTINGUISHING MEDIA
Use dry powder, AFFF, alcohol-resistant foam, water in large amounts, carbon
SPECIAL FIRE FIGHTING PROCEDURES
Water spray may be ineffective on fire but can protect fire-fighters & cool
closed containers. Use fog nozzles if water is used.
Do not enter confined fire-space without full bunker gear.
(Helmet with face shield, bunker coats, gloves & rubber boots).
Use NIOSH approved positive-pressure self-contained breathing apparatus.

UNUSUAL EXPLOSION AND FIRE PROCEDURES
HIGHLY FLAMMABLE!! VAPORS CAN CAUSE FLASH FIRE
Keep container tightly closed.
Isolate from oxidizers, heat, sparks, electric equipment & open flame.
Closed containers may explode if exposed to extreme heat.
Applying to hot surfaces requires special precautions.
Empty container very hazardous! Continue all label precautions!

SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTIVE MEASURES:
EVACUATE DANGER AREA! Consult an expert!
Vapors may ignite explosively & spread long distances. Prevent vapor buildup.
Keep unprotected personnel away. Ventilate spill area. Remove all ignition
sources. Use complete chemical protective suit with self-contained breathing
apparatus.

CONTAINMENT AND CLEAN-UP MEASURES:
Stop spill at source. Dike and contain. Collect leaking liquid in sealable
containers. Absorb remaining liquid in sand or inert absorbent. Remove to
safe place.

SECTION 7. HANDLING AND STORAGE

HANDLING
Isolate from oxidizers, heat, sparks, electric equipment & open flame.
Use only with adequate ventilation. Avoid breathing of vapor or spray mist.
Avoid contact with skin & eyes.
Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier.
Wear gloves, apron & footwear impervious to this material. Wash clothing
before reuse.
Avoid free fall of liquid. Ground containers when transferring.
Do not flame cut, saw, drill, braze, or weld. Empty container very hazardous!
Continue all label precautions!

STORAGE
Keep in fireproof surroundings. Keep separated from strong oxidants, food &
feedstuffs. Keep cool.
Do not store above 49 C/120 F. Keep container tightly closed & upright when
not in use to prevent leakage.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:
RESPIRATORY EXPOSURE CONTROLS

A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator’s use.

VENTILATION

LOCAL EXHAUST: Necessary
MECHANICAL (GENERAL): Acceptable
SPECIAL: None
OTHER: None


PERSONAL PROTECTION:

Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier.
Wear gloves, apron & footwear impervious to this material. Wash clothing before reuse.

WORK & HYGIENIC PRACTICES:

Provide readily accessible eye wash stations & safety showers.
Wash at end of each workshift & before eating, smoking or using the toilet. Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

SECTION 9. PHYSICAL DATA

APPEARANCE: Liquid, Water-White

ODOR: Ketone

BOILING RANGE: 63 77 100 C / 147 171 212 F

AUTO IGNITION TEMPERATURE: 398 C / 750 F (Lowest Component)

LOWER FLAMMABLE LIMIT IN AIR (% by vol): 1.4 (Lowest Component)

FLASH POINT (TEST METHOD): 4 C / 40 F (TCC) (Lowest Component)

FLAMMABILITY CLASSIFICATION: Class I B

GRAVITY 68/68 F / 20/20 C:

API: 45.7

SPECIFIC GRAVITY (Water=1): 0.798

POUNDS/GALLON: 6.651

VOC'S (>0.44 Lbs/Sq In): 98.0 Vol. % / 778.5 g/L / 6.484 Lbs/Gal

TOTAL VOC'S (TVOC): 98.0 Vol. % / 778.5 g/L / 6.484 Lbs/Gal

NONEXEMPT VOC'S (CVOC): 98.0 Vol. % / 778.5 g/L / 6.484 Lbs/Gal

HAZARDOUS AIR POLLUTANTS (HAPS): 5.7 Wt. % / 45.5 g/L / 0.379 Lbs/Gal

VAPOR PRESSURE (mm of Hg)@20 C: 45.1

NONEXEMPT VOC PARTIAL PRESSURE (mm of Hg 20 C): 44.0

VAPOR DENSITY (air=1): 1.5

WATER ABSORPTION: Appreciable

REFRACTIVE INDEX: 1.362

SECTION 10. STABILITY & REACTIVITY

STABILITY

Stable under normal conditions.

CONDITIONS TO AVOID
Isolate from oxidizers, heat, sparks, electric equipment & open flame.

MATERIALS TO AVOID
The substance can presumably form explosive peroxides, under the influence of light and air,
Check for peroxide prior to distillation, eliminate if found, Reacts violently with strong oxidants, strong reducing agents, causing fire & explosion hazard.

HAZARDOUS DECOMPOSITION PRODUCTS
Carbon Monoxide, Carbon Dioxide from burning.

HAZARDOUS POLYMERIZATION
Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS #</th>
<th>TWA (OSHA)</th>
<th>TLV (ACGIH)</th>
<th>HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>1000 ppm</td>
<td>1000 ppm A4</td>
<td>No</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>400 ppm</td>
<td>200 ppm A4</td>
<td>No</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>200 ppm S</td>
<td>200 ppm S</td>
<td>Yes</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>None Known</td>
<td>None Known</td>
<td>No</td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>108-10-1</td>
<td>100 ppm</td>
<td>50 ppm</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Each component showing 'Yes' under "HAP" is an EPA Hazardous Air Pollutant.

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS #</th>
<th>CEILING</th>
<th>STEL(OSHA/ACGIH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>None Known</td>
<td>400 ppm</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>None Known</td>
<td>250 ppm</td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone</td>
<td>108-10-1</td>
<td>None Known</td>
<td>75 ppm</td>
</tr>
</tbody>
</table>

ACUTE HAZARDS

EYE & SKIN CONTACT:
Primary irritation to skin, defatting, dermatitis.
Primary irritation to eyes, redness, tearing, blurred vision.
Liquid can cause eye irritation. Wash thoroughly after handling.

INHALATION:
Anesthetic. Irritates respiratory tract. Acute overexposure can cause serious nervous system depression. Vapor harmful.
Breathing vapor can cause irritation.
Acute overexposure can cause harm to kidneys, blood, nerves, liver, lungs.
Repeated exposure over TLV can cause blindness.

SWALLOWING:
Can be fatal or cause blindness if swallowed. Cannot be made non-poisonous.
POISON ! Can cause irreversible nervous system damage & death.
Harmful or fatal if swallowed.
Swallowing can cause abdominal irritation, nausea, vomiting & diarrhea.

SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

CONDITIONS AGGRAVATED
Chronic overexposure can cause harm to kidneys, blood, nerves, liver, lungs. Persons with severe skin, liver or kidney problems should avoid use.

CHRONIC HAZARDS

CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS:
This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date, greater or equal to 0.1%. Absorption thru skin may be harmful. Studies with laboratory animals indicate this product can cause damage to fetus. Depending on degree of exposure, periodic medical examination is indicated.

SECTION 12. ECOLOGICAL INFORMATION

MAMMALIAN INFORMATION:

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS #</th>
<th>LOWEST KNOWN LETHAL DOSE DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>1000.0 mg/kg (Man)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LOWEST KNOWN LD50 (ORAL)</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>16000 ppm (Rats)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LOWEST KNOWN LC50 (VAPORS)</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>16400.0 mg/kg (Rabbits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LOWEST KNOWN LD50 (SKIN)</td>
</tr>
</tbody>
</table>

AQUATIC ANIMAL INFORMATION:
The most sensitive known aquatic group to any component of this product is: Goldfish 250 ppm or mg/L (24 hour exposure).
Keep out of sewers and natural water supplies.

MOBILITY
This material is a mobile liquid.

DEGRADABILITY
This product is completely biodegradable.

ACCUMULATION
This product does not accumulate or biomagnify in the environment.

SECTION 13. DISPOSAL CONSIDERATIONS
Processing, use or contamination may change the waste management options. Recycle / dispose of observing national, regional, state, provincial and local health, safety & pollution laws. If in doubt, contact appropriate agencies.

SECTION 14. TRANSPORT INFORMATION
IF CONTAINER HAS > PRODUCT RQ (SEE SECTION 15) PUT "RQ," BEFORE SHIPPING

NAME. DOT SHIPPING NAME: UN1170, Ethanol solutions, 3, PG-II

DRUM LABEL: (FLAMMABLE LIQUID)

IATA / ICAO: UN1170, Ethanol solutions, 3, PG-II, POISON
IMO / IMDG: UN1170, Ethanol solutions, 3, PG-II, POISON

EMERGENCY RESPONSE GUIDEBOOK NUMBER: 127

SECTION 15. REGULATORY INFORMATION

EPA REGULATION:
SARA SECTION 311/312 HAZARDS: Acute Health, Fire

All components of this product are on the TSCA list.
SARA Title III Section 313 Supplier Notification
This product contains the indicated <*> toxic chemicals subject to the
reporting requirements of Section 313 of the Emergency Planning & Community
Right-To-Know Act of 1986 & of 40 CFR 372. This information must be included
in all MSDSs that are copied and distributed for this material.

SARA TITLE III INGREDIENTS  CAS#  WT. % (REG. SECTION)  RQ (LBS)
*Methanol  67-56-1  < 5  (311,312,313,RCRA)  5000
*Methyl Isobutyl Ketone  108-10-1  < 1  (311,312,313,RCRA)  5000

> 104167 LB / 47348 KG OF THIS PRODUCT IN 1 CONTAINER EXCEEDS THE "RQ" OF
METHANOL. Any release equal to or exceeding the RQ must be reported to the
National Response Center (800-424-8802) and appropriate state and local
regulatory agencies as described in 40 CFR 302.6 and 40 CFR 355.40
respectively. Failure to report may result in substantial civil and criminal
penalties. State & local regulations may be more restrictive than federal
regulations.

STATE REGULATIONS:
THIS PRODUCT MEETS REQUIREMENTS OF SOUTHERN CALIFORNIA AQMD RULE 443.1 &
SIMILAR REGULATIONS

CALIFORNIA PROPOSITION 65: This product contains no chemicals
known to the State of California to cause cancer & reproductive toxicity.

INTERNATIONAL REGULATIONS
The components of this product are listed on the chemical inventories of the
following countries:
Australia, Canada, China, Europe (EINECS), Japan, Korea, United Kingdom.

SECTION 16. OTHER INFORMATION

HAZARD RATINGS:
HEALTH (NFPA): 1,  HEALTH (HMIS): 3,  FLAMMABILITY: 3,  REACTIVITY: 0
(Personal Protection Rating to be supplied by user based on use conditions.)
This information is intended solely for the use of individuals
trained in the NFPA & HMIS hazard rating systems.
See Section 3 for Risk & Safety Statements. Employees should be made aware of all hazards of this material (as stated in this MSDS) before handling it.
Univar USA Inc Material Safety Data Sheet

For Additional Information contact MSDS Coordinator during business hours, Pacific time: (425) 889-3400

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