

MATERIAL SAFETY DATA SHEET



Date Issued: 08/16/2005
 MSDS No: 4491
 Date-Revised: 11/29/2007
 Revision No: 8

IPA SEMI

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: IPA SEMI

PRODUCT CODE: 4491, 4491C, 4471, 6300, 6301, 6302, 6305

ALTERNATE TRADE NAME(S): IPA, Isopropanol, 2-Propanol

MANUFACTURER

Distributed by Tarr Acquisition, LLC
 4115 W. Turney Ave.
 Phoenix AZ 85019
Service Number: 602-233-2000

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (US Transportation) :(800) 424 - 9300
CANUTEC (Canadian Transportation) :(613) 996 - 6666

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: WARNING! Flammable liquid and vapor. Harmful or fatal if swallowed.
 Vapor harmful. May cause central nervous system depression. May be irritating to eyes and skin.

POTENTIAL HEALTH EFFECTS

EYES: Moderately irritating to the eyes.

SKIN: Mildly irritating to the skin.

INGESTION: Irritating to the gastrointestinal tract, causing abdominal pain and vomiting, sometimes bloody. Ingestion may cause CNS depression, low blood pressure, rapid heart beat and liver damage.

INHALATION: May cause mild irritation to the nose, throat and respiratory tract and may result in central nervous system (CNS) depression.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

ACUTE TOXICITY: Irritation as noted above. Early to moderate CNS depression may be evidenced by giddiness, headache, dizziness, and nausea; in extreme cases, unconsciousness and death may occur. Aspiration pneumonitis may be evidenced by coughing, labored breathing and cyanosis (bluish skin). Liver damage may be evidenced by loss of appetite, jaundice and sometimes pain in the upper abdomen on the right side.

MEDICAL CONDITIONS AGGRAVATED: Preexisting eye, skin and respiratory disorders may be aggravated by exposure to this product. Impaired function from preexisting disorders may be aggravated by exposure to this product.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %
99 - 100	

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention, if irritation occurs or persists.

SKIN: Flush skin with water while removing contaminated clothing. If irritation occurs, get medical attention. Do not reuse clothing or shoes until cleaned.

INGESTION: Do not give liquids if victim is unconscious or drowsy. Otherwise, give 2 glasses of water and induce vomiting by giving 30cc syrup of ipecac (or touching finger to the back of victim's throat). Keep victim's head below hips while vomiting. Call doctor.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Seek immediate medical attention.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: 12°C (53°F)

FLAMMABLE LIMITS: 0.02 to 0.127

AUTOIGNITION TEMPERATURE: (750°F)

EXTINGUISHING MEDIA: Use water fog, "alcohol" foam, dry chemical, or CO₂.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide and unidentified organic compounds may be formed during combustion.

EXPLOSION HAZARDS: When heated above the flash point, this material emits flammable vapors which, when mixed with air, can burn or be explosive. Fine mists or sprays may be flammable at temperatures below the flash point.

FIRE FIGHTING PROCEDURES: WARNING! Flammable Liquid. Clear fire area of unprotected personnel. Do not enter confined fire space without full bunker gear, including a positive pressure NIOSH approved SCBA. Cool fire exposed containers with water.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: WARNING. Flammable. Ventilate area of leak or spill. Remove all sources of ignition. Clean-up personnel require protective clothing and respiratory protection from vapors. Only specially trained or qualified personnel should handle the emergency.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Keep away from heat, sparks, and flame. Surfaces that are hot may ignite even liquid product in the absence of sparks or flame. Extinguish pilot lights, cigarettes and turn off other

sources of ignition prior to use and until all vapors are gone.

COMMENTS: KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition; they may explode and cause injury or death.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Use chemical safety goggles and/or full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work areas.

SKIN: Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

RESPIRATORY: If exposure may or does exceed occupational exposure limits (Sec. 8) use a NIOSH approved respirator to prevent overexposure. In accord with 29 CFR 1910.134 use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

PROTECTIVE CLOTHING: Where splashing is possible, full chemically resistant protective clothing (e.g., acid suit) and boots are required.

WORK HYGIENIC PRACTICES: Use good personal hygiene when handling this product. Wash hands after use, before eating, drinking, smoking, or using the toilet.

OTHER USE PRECAUTIONS: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Mild odor.

COLOR: Clear, colorless liquid.

PERCENT VOLATILE: 100

VAPOR PRESSURE: 32

VAPOR DENSITY: Heavier than air.

BOILING POINT: (180°F) to (181°F)

FREEZING POINT: NDA = no data available.

MELTING POINT: (-127°F)

FLASHPOINT AND METHOD: 12°C (53°F)

SOLUBILITY IN WATER: Infinitely soluble

EVAPORATION RATE: Slower than ether.

DENSITY: 6.55

SPECIFIC GRAVITY: 0.790 to 0.80

(VOC): 6.548 lbs./gal.

10. STABILITY AND REACTIVITY

STABLE: Yes

POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Avoid heat, sparks, flame and contact with strong oxidizing agents. Do not store or handle in aluminum equipment at temperatures above 120 deg. F.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide and unidentified organic compounds may be formed during combustion.

INCOMPATIBLE MATERIALS: Strong oxidizers.

11. TOXICOLOGICAL INFORMATION

COMMENTS: None Expected.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill response plan should be developed and implemented.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

EMPTY CONTAINER: KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue and can be dangerous. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition.

RCRA/EPA WASTE INFORMATION: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

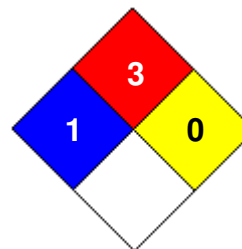
14. TRANSPORT INFORMATION**DOT (DEPARTMENT OF TRANSPORTATION)****PROPER SHIPPING NAME:** Isopropanol**PRIMARY HAZARD CLASS/DIVISION:** 3**UN/NA NUMBER:** UN 1219**PACKING GROUP:** II**NAERG:** 129**LABEL:** Flammable liquid**15. REGULATORY INFORMATION****UNITED STATES****DOT LABEL SYMBOL AND HAZARD CLASSIFICATION**

Flammable Liquid

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**311/312 HAZARD CATEGORIES:** This product should be reported as an immediate (acute) health hazard, delayed (chronic) health hazard, and a fire hazard.**FIRE:** Yes **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes
CHRONIC: Yes**313 REPORTABLE INGREDIENTS:** To the best of our knowledge, this product is not listed as a toxic chemical.**302/304 EMERGENCY PLANNING****EMERGENCY PLAN:** To the best of our knowledge, this product is not listed as an extremely hazardous substance.**TSCA (TOXIC SUBSTANCE CONTROL ACT)****TSCA STATUS:** Listed.**16. OTHER INFORMATION****PREPARED BY:** Compliance Dept.**REVISION SUMMARY:** Revision #: 8 This MSDS replaces the November 28, 2007 MSDS. Any changes in information are as follows: In Section 1 MSDS Product Code

HMIS RATING

HEALTH:	1
FLAMMABILITY:	3
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	G

NFPA CODES

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