

PORT NUMBER: 703 UNIVAR USA INC. PAGE: 001
DS NO: EZ060041 MATERIAL SAFETY DATA SHEET
INFRAME UPLOAD DATE: 12/07/05 VERSION: 007

PRODUCT: ISOPROPYL ALCOHOL / ISOPROPRANOL

ORDER NO: 369885
PROD NO : 285820

STEINS INC
3001 - 17TH STREET SO.
P. O. BOX 248

MOORHEAD ,MN 56560

IVAR USA INC. (425)889-3400
00 CARILLON POINT , KIRKLAND , WA 98033

----- EMERGENCY ASSISTANCE -----

FOR EMERGENCY ASSISTANCE INVOLVING CHEMICALS CALL - CHEMTREC
(800)424-9300

PRODUCT IDENTIFICATION

PRODUCT NAME: ISOPROPYL ALCOHOL / ISOPROPRANOL
DS NUMBER: EZ060041
DATE ISSUED: 10/20/03
EFFECTIVE DATE: 10/16/02
REVISED BY: 009292

MATERIAL SAFETY DATA SHEET

CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name	Isopropanol
Distributed by:	
Univar USA Inc.	
00 Carillon Point	
Kirkland, WA 98033	
(425)-889-3400	
Chemical Name	2-propanol
Trade Name(s)	900212
Molecular Formula	C3H8O

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Molecular Weight	60.09
Product Use	solvent
HA Status	hazardous

For emergency transportation information, call CHEMTREC at 800-424-9300

COMPOSITION INFORMATION ON INGREDIENTS

Typical composition is given, and it may vary. A certificate of analysis can be provided, if available.)

Weight %	Component	CAS Registry No.
100%	isopropyl alcohol	67-63-0

HAZARDS IDENTIFICATION

WARNING:

FLAMMABLE LIQUID AND VAPOR

CAUSES EYE IRRITATION

HIGH VAPOR CONCENTRATIONS MAY CAUSE DROWSINESS AND IRRITATION OF THE EYES

Irritation of RESPIRATORY TRACT

Prolonged or repeated skin contact may cause drying, cracking, or irritation

FORMS EXPLOSIVE PEROXIDES

Hazard Ratings: Health - 2, Flammability -3, Chemical Reactivity - 1

GHS Hazard Ratings: Health 2.1, Flammability 2.3, Reactivity - 0

The hazard rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

FIRST-AID MEASURES

Inhalation:

Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

Eyes:

Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Skin:

Wash with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Thoroughly clean shoes before reuse.

Ingestion:

Get medical advice.

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I. FIRE FIGHTING MEASURES

Extinguishing Media:

Water spray, dry chemical, carbon dioxide, alcohol foam

Special Fire-Fighting Procedures:

Wear self-contained breathing apparatus and protective clothing.

Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location.

Hazardous Combustion Products:

Carbon dioxide, carbon monoxide

Unusual Fire and Explosion Hazards:

Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations. Forms explosive peroxides which may be shock sensitive.

Sensitivity to Static Discharge:

Material may accumulate a static charge which could act as an ignition source.

ACCIDENTAL RELEASE MEASURES

Use personal protective equipment. Eliminate all ignition sources. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

For Large Spills:

Use water spray to disperse vapors and dilute spill to a nonflammable mixture.

Prevent runoff from entering drains, sewers, or streams.

HANDLING AND STORAGE

Personal Precautionary Measures:

Avoid contact with eyes and prolonged or repeated contact with skin. Avoid breathing high vapor concentrations. Use only with adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion:

Keep material from heat, light, sparks and flame. Keep from contact with oxidizing materials. Use only with adequate ventilation. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids. Do not expose to air. After

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pening, purge container with nitrogen before reclosing. Periodically test for peroxide formation on long-term storage. If peroxide formation is suspected, do not open or move container. Do not allow to evaporate to near dryness. Distill with caution. Addition of water or appropriate reducing materials will lessen peroxide formation.

Storage:

Keep container tightly closed and in a well-ventilated place.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Country specific exposure limits have not been established or are not applicable unless listed below.

ISOPROPYL ALCOHOL

3. NIOSH: Pocket Guide to Chemical Hazards

Recommended exposure limit (REL): 400 ppm, 980 mg/m³

3. NIOSH: Pocket Guide to Chemical Hazards

Short Term Exposure Limit (STEL): 500 ppm, 1,225 mg/m³

3. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

TL: 400 ppm, 980 mg/m³

1. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values

Time Weighted Average (TWA): 200 ppm,

1. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values

Short Term Exposure Limit (STEL): 400 ppm,

ISOPROPANOL (ISOPROPYL ALCOHOL)

1. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values

Time Weighted Average (TWA): 200 ppm,

1. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values

Short Term Exposure Limit (STEL): 400 ppm,

ISOPROPYL ALCOHOL

1. California Code of Regulations, Title 8, Section 5155. Airborne

Contaminants

Time Weighted Average (TWA) Permissible Exposure Limit (PEL): 400 ppm,

980 mg/m³

1. California Code of Regulations, Title 8, Section 5155. Airborne

Contaminants

Short Term Exposure Limit (STEL): 500 ppm, 1,225 mg/m³

ISOPROPANOL

1. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 200 ppm,

1. ACGIH Threshold Limit Values

Short Term Exposure Limit (STEL): 400 ppm,

Ventilation:

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls

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o maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Respiratory Protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 3 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Eye Protection:

Wear safety glasses with side shields (or goggles). Wear a full-face respirator, if needed.

Skin Protection:

In operations where prolonged or repeated skin contact may occur, chemical-resistant gloves should be worn. Contact health and safety professional or manufacturer for specific information.

Recommended Decontamination Facilities: eye bath, washing facilities

PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: liquid
Color: colorless
Solvent: alcohol
Flammable Limit: 22 ppm
Specific Gravity: 0.786 (20 C)
Vapor Pressure: 20 C; 43.3 mbar
Vapor Density: 2.1
Boiling Point: -90 C
Freezing Point: 82 C
Evaporation Rate: 1.7 (n-butyl acetate = 1)
Viscosity: 2.28 mPa.s (20 C)
Solubility in Water: complete
Ethanol/Water Partition Coefficient: P: 1.4; log P: 0.14
Flash Point: 13 C (Tag closed cup)
Autoignition Temperature: 432 C (ASTM D2155)
Normal Decomposition Temperature:
(HPDTA) No exotherm to boiling (at 150 psig)

STABILITY AND REACTIVITY

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stability:

table. Forms explosive peroxides on concentration.

incompatibility:

aterial reacts violently with strong oxidizing agents

azardous Polymerization:

ill not occur.

1. TOXICOLOGICAL INFORMATION

skin:

his material has a low potential to cause allergic skin reactions; however,
ases of human skin sensitization have been reported.

acute toxicity data, if available, are listed below. Additional toxicity
ata may be available on request.

oral LD-50:(rat) 5,800 mg/kg

oral LD-50:(rabbit) 7,900 mg/kg

oral LD-50:(dog) 6,200 mg/kg

inhalation LC-50: (rat) 8 h: 12000 ppm

ermal LD-50: (rabbit) 16.4 ml/kg

skin Irritation (rabbit) slight

eye Irritation (rabbit) moderate

2. ECOLOGICAL INFORMATION

acute toxicity data, if available, are listed below. Additional toxicity
ata may be available on request.

oxygen Demand Data:

10-5: 1,190 - 1,720 mg/g

10-20: 1,680 mg/g

BOD: 2,230 mg/g

COD: 2,400 mg/g

acute Aquatic Effects Data:

fish LC-50 (fathead minnow): > 1000 ul/l

fish LC-50 (golden orfe): 8970 - 9280 mg/l

fish LC-50 (daphnid): > 1000 ul/l

3. DISPOSAL CONSIDERATIONS

Discharge, treatment, or disposal may be subject to national, state, or
local laws. Mix with compatible chemical which is less flammable and

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incinerate. Since emptied containers retain product residue, follow label warnings even after container is emptied. Residual vapors may explode on ignition; do not cut, drill, grind, or weld on or near this container.

4. TRANSPORT INFORMATION

airborne pollutant components: none unless listed below
DOT (USA): Class 3 Packing group II
ICAO Status: Class 3 Packing group II
MDG Status: Class 3 Packing group II

5. REGULATORY INFORMATION

HMIS (Canada) Status: controlled
HMIS (Canada) Hazard Classification: B/2, D/2/B

ARA 311-312 Hazard Classification(s):
immediate (acute) health hazard
fire hazard

ARA 313: none, unless listed below

carcinogenicity Classification (components present at 0.1% or more): none, unless listed below

TSCA (US Toxic Substances Control Act): This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): This product is listed on the DSL. Any impurities present in this product are exempt from listing.

EINECS (European Inventory of Existing Commercial Chemical Substances): This product is listed on EINECS.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): This product is listed on AICS or otherwise complies with NICNAS.

HS (Japanese Handbook of Existing and New Chemical Substances): This product is listed in the Handbook or has been approved in Japan by new substance notification.

KSCA (Korean Toxic Substances Control Act): This product is listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.

OTHER INFORMATION

