ANHUI EAPEARL CHEMICAL CO.,LTD.

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Name:Isopropyl Alcohol

Synonym:Isopropanol; Dimethylcarbinol; sec-Propyl alcohol; Rubbing alcohol; Petrohol; 1-Methylethanol; 1-Methylethyl alcohol; 2-Hydroxypropane; 2-Propyl alcohol; Isopropyl alcohol; Propan-2-ol; IPA; 2-Propanol

CAS:67-63-0

Section 1 - Chemical Product

Name:Isopropyl Alcohol

Synonym:Isopropanol; Dimethylcarbinol; sec-Propyl alcohol; Rubbing alcohol; Petrohol; 1-Methylethanol; 1-Methylethyl alcohol; 2-Hydroxypropane; 2-Propyl alcohol; Isopropyl alcohol; Propan-2-ol; IPA; 2-Propanol

Section 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	content	EINECS#
67-63-0	Isopropyl alcohol	99.9	200-661-7

Hazard Symbols: XI F

Risk Phrases: 11 36 67

Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Highly flammable. Irritating to eyes. Vapors may cause drowsiness and dizziness.

Potential Health Effects

Eye:

Produces irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury. May cause transient corneal injury.

Skin:

May cause irritation with pain and stinging, especially if the skin is abraded. Isopropanol has a low potential to cause allergic skin reactions; however, rare cases of allergic contact dermatitis

have been reported. May be absorbed through intact skin.

Ingestion:

Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause kidney damage. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. Aspiration of material into the lungs may cause chemical pneumonitis, which may be fatal.

Inhalation:

Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. May cause narcotic effects in high concentration. Causes upper respiratory tract irritation. Inhalation of vapors may cause drowsiness and dizziness.

Chronic:

Prolonged or repeated skin contact may cause defatting and dermatitis.

Section 4 - FIRST AID MEASURES

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Skin:

Incaseofcontact,flushskinwithplentyofwater.Removecontaminatedclothingandshoes.Getmedical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion:

Potential for aspiration if swallowed. Get medical aid immediately.
Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Urine acetone test may be helpful in diagnosis. Hemodialysis should be considered in severe intoxication. Treat symptomatically and supportively.

Section 5 - FIRE FIGHTING MEASURES

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved

or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Use water spray to keep fire-exposed containers cool. Flammable liquid and vapor. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.

Extinguishing Media:

Water may be ineffective. Do NOT use straight streams of water. For large fires, use dry chemical, carbon dioxide, alcohol-resistant foam, or water spray. For small fires, use carbon dioxide, dry chemical, dry sand, or alcohol-resistant foam. Cool containers with flooding quantities of water until well after fire is out.

Section 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Use water spray to dilute spill to a non-flammable mixture. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. A vapor suppressing foam may be used to reduce vapors.

Section 7 - HANDLING and STORAGE

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Take precautionary measures against static discharges. Keep container tightly closed. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Avoid breathing vapor or mist.

Storage:

Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

Section 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment Eyes: Wear chemical goggles.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

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

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Appearance: colorless liquid

Odor: alcohol-like

pH: Not available.

Vapor Pressure: 33 mm Hg @ 20 deg C

Viscosity: 2.27 mPas @ 20C

Boiling Point: 82 deg C @ 760 mmHg

Freezing/Melting Point: -88 deg C

Autoignition Temperature: 399 deg C (750.20 deg F)

Flash Point: 64 deg F (17.78 deg C)

Explosion Limits, lower: 2.0 vol %

Explosion Limits, upper: 12.7 @ 200F

Decomposition Temperature: Not available.

Solubility in water: Miscible.

Specific Gravity/Density: 0.7850 (water=1)

Molecular Formula: C3H8O

Molecular Weight: 60.09

Section 10 - STABILITY AND REACTIVITY

Chemical Stability:

Stable.

Conditions to Avoid:

Ignition sources, excess heat.

Incompatibilities with Other Materials:

Strong oxidizing agents, strong acids, strong bases, amines, ammonia, ethylene oxide, isocyanates, acetaldehyde, chlorine, phosgene, Attacks some forms of plastics, rubbers, and coatings., aluminum at high temperatures.

Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 67-63-0: NT8050000 CAS# 7732-18-5: ZC0110000 LD50/LC50:

CAS#67-63-0:Draizetest,rabbit,eye:100mgSevere;Draizetest,rabbit,eye:10mgModerate;Draize test, rabbit, eye: 100 mg/24H Moderate; Draize test, rabbit, skin: 500 mg Mild; Inhalation, rat: LC50 = 16000 ppm/8H; Oral, mouse: LD50 = 3600 mg/kg; Oral, rabbit: LD50 = 6410 mg/kg; Oral, rat: LD50 = 5045 mg/kg; Skin, rabbit: LD50 = 12800 mg/kg.

CAS# 7732-18-5: Oral, rat: LD50 = >90 mL/kg.

Carcinogenicity:

Isopropyl alcohol - IARC: Group 3 carcinogen Water - Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Other:

See actual entry in RTECS for complete information.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity:

Fish: Fathead Minnow: >1000 ppm; 96h; LC50Daphnia: >1000 ppm; 96h; LC50Fish: Gold orfe: 8970-9280 ppm; 48h; LC50IPA has a high biochemical oxygen demand and a potential to cause oxygen depletion in aqueous systems, a low potential to affect aquatic organisms, a low potential to affect secondary waste treatment microbial metabolism, a low potential to affect the germination of some plants, a high potential to biodegrade (low persistence) with unacclimated microorganisms from activated sludge.

Section 13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - TRANSPORT INFORMATION

IATA

Shipping Name: ISOPROPANOL SOLUTION

Hazard Class: 3

UN Number: 1219

Packing Group: II

IMO

Shipping Name: ISOPROPANOL SOLUTION

Hazard Class: 3

UN Number: 1219

Packing Group: II

RID/ADR

Shipping Name: ISOPROPANOL SOLUTION

Dangerous Goods Code: 3

UN Number: 1219

Section 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XI F

Risk Phrases:

R 11 Highly flammable.

R 36 Irritating to eyes.

R 67 Vapors may cause drowsiness and dizziness.

Safety Phrases:

S 7 Keep container tightly closed.

S 16 Keep away from sources of ignition - No smoking.

S 24/25 Avoid contact with skin and eyes.

S 26 In case of contact with eyes, rinse immediately
with plenty of water and seek medical advice.

WGK (Water Danger/Protection)

CAS# 67-63-0: 1

CAS# 7732-18-5: No information available.

United Kingdom Occupational Exposure Limits

CAS# 67-63-0: OES-United Kingdom, TWA 400 ppm TWA; 999 mg/m3 TWA

CAS# 67-63-0: OES-United Kingdom, STEL 500 ppm STEL; 1250 mg/m3 STEL

CAS# 67-63-0: OES-United Kingdom, STEL 500 ppm STEL; 1250 mg/m3 STEL

Canada

CAS# 67-63-0 is listed on Canadas DSL List.

CAS# 7732-18-5 is listed on Canadas DSL List.

CAS# 67-63-0 is listed on Canadas Ingredient Disclosure List.

CAS# 7732-18-5 is not listed on Canadas Ingredient Disclosure List.

Exposure Limits

CAS# 67-63-0: OEL-AUSTRALIA:TWA 400 ppm (980 mg/m3);STEL 500 ppm (1225 mg/m3)

OEL-BELGIUM:TWA 400 ppm (985 mg/m3);STEL 500 ppm (1230 mg/m3)

OEL-DENMARK:TWA 200 ppm (490 mg/m3);Skin

OEL-FRANCE:STEL 400 ppm (980 mg/m3)

OEL-GERMANY:TWA 400 ppm (980 mg/m3)

OEL-JAPAN:STEL 400 ppm (980 mg/m3)

OEL-THE NETHERLANDS:TWA 400 ppm (980 mg/m3);Skin

OEL-THE PHILIPPINES:TWA 400 ppm (980 mg/m3)

OEL-RUSSIA:STEL 400 ppm (10 mg/m3)

OEL-SWEDEN:TWA 150 ppm (350 mg/m3);STEL 250 ppm (600 mg/m3)

OEL-SWITZERLAND:TWA 400 ppm (980 mg/m3);STEL 800 ppm

OEL-TURKEY:TWA 200 ppm (500 mg/m3)

OEL-UNITED KINGDOM:TWA 400 ppm (980 mg/m3);STEL 500 ppm;Skin

OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

US FEDERAL

TSCA

CAS# 67-63-0 is listed on the TSCA inventory.

CAS# 7732-18-5 is listed on the TSCA inventory.