

## ISOPROPYL ALCOHOL (IPA)

### MATERIAL SAFETY DATA SHEET (MSDS)

#### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

##### 1.1. Product identifier

Product name : ZYAX ISOPROPYL ALCOHOL (IPA)  
Product code : -

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. ISOPROPYL ALCOHOL (IPA)

##### 1.3. Details of the supplier of the safety data sheet

**ZYAX CHEM PVT. LTD.,**  
3rd Floor, Kamer Building,  
38 Cawasji Patel Street, Fort,  
Mumbai - 400001, India.  
Contact No: +91 8779240420  
info@zyax.in - www.zyax.in

##### 1.4. Emergency telephone number

Emergency number : +91 22 2757 3899

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, H225  
Category 2  
Serious eye damage/eye H319  
irritation, Category 2  
Specific target organ H336  
toxicity — Single  
exposure, Category 3,  
Narcosis



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Full text of H statements : see section 16

### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

F; R11  
Xi; R36  
R67

Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS02

GHS08

GHS07

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H225 - Highly flammable liquid and vapour.  
H319 - Causes serious eye irritation.  
H336 - May cause drowsiness or dizziness.

Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P261 - Avoid breathing vapours, dust, fume, gas.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name : iso-PROPYL ALCOHOL For Synthesis  
CAS-No. : 67-63-0  
EC-No. : 200-661-7  
EC Index-No. : 603-117-00-0

Full text of R- and H-statements: see section 16



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### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- |                                       |  |
|---------------------------------------|--|
| First-aid measures after inhalation   | : Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.                                     |
| First-aid measures after skin contact | : Get medical advice/attention. Wash with plenty of water/....   |
| First-aid measures after eye contact  | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention. |
| First-aid measures after ingestion    | : Rinse mouth. Do not induce vomiting. Get medical advice/attention.   |

### 4.2. Most important symptoms and effects, both acute and delayed

- |                                    |                                      |
|------------------------------------|--------------------------------------|
| Symptoms/effects after inhalation  | : May cause drowsiness or dizziness. |
| Symptoms/effects after eye contact | : Causes serious eye irritation.     |

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- |                                |  |
|--------------------------------|--|
| Suitable extinguishing media   | : Carbon dioxide. Dry powder. Foam. Water spray.   |
| Unsuitable extinguishing media | : Do not use extinguishing media containing water. |

### 5.2. Special hazards arising from the substance or mixture

- |                  |  |
|------------------|--|
| Fire hazard      | : Highly flammable liquid and vapour.              |
| Explosion hazard | : May form flammable/explosive vapour-air mixture. |

### 5.3. Advice for firefighters

- |                                |   |
|--------------------------------|---|
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection. |
|--------------------------------|---|

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

- |                  |   |
|------------------|---|
| General measures | : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. |
|------------------|---|

#### 6.1.1. For non-emergency personnel

- |                      |                                   |
|----------------------|-----------------------------------|
| Emergency procedures | : Evacuate unnecessary personnel. |
|----------------------|-----------------------------------|

#### 6.1.2. For emergency responders

- |                      |  |
|----------------------|--|
| Protective equipment | : Use personal protective equipment as required. |
| Emergency procedures | : Ventilate area.                                |

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

- |                         |  |
|-------------------------|--|
| Methods for cleaning up | : On land, sweep or shovel into suitable containers. Collect spillage. |
|-------------------------|--|

### 6.4. Reference to other sections

No additional information available



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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Additional hazards when processed	: Handle empty containers with care because residual vapours are flammable.
Precautions for safe handling	: Keep away from sources of ignition - No smoking. Use only non-sparking tools. Avoid contact with skin and eyes. Use only outdoors or in a well-ventilated area. Do not breathe vapours.
Hygiene measures	: Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.
Storage conditions	: Keep in fireproof place. Keep container tightly closed.
Incompatible materials	: Heat sources.

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

Hand protection	: Protective gloves
Eye protection	: Chemical goggles or safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Molecular mass	: 60.1 g/mol
Colour	: Clear Colorless.
Odour	: alcoholic odour.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: 2.83
Melting point	: -89 °C
Freezing point	: No data available
Boiling point	: 82 °C



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Flash point	: 12 °C
Auto-ignition temperature	: 399 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable Highly flammable liquid and vapour.
Vapour pressure	: 43.2 hPa at 20°C
Relative vapour density at 20 °C	: 2.1
Relative density	: No data available
Density	: 0.79 g/cm <sup>3</sup>
Solubility	: Water: Miscible in water
Log Pow	: 0.05
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 0.02 - 0.127 vol %

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Open flame. Heat. Sparks.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.



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Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

##### iso-PROPYL ALCOHOL For Synthesis (67-63-0)

Log Pow	0.05
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#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product/Packaging disposal recommendations	: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Additional information	: Handle empty containers with care because residual vapours are flammable.

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

UN-No. (ADR)	: 1219
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UN-No. (IMDG) : 1219  
UN-No. (IATA) : 1219  
UN-No. (ADN) : 1219  
UN-No. (RID) : 1219

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : ISOPROPANOL (ISOPROPYL ALCOHOL)  
Proper Shipping Name (IMDG) : ISOPROPANOL (ISOPROPYL ALCOHOL)  
Proper Shipping Name (IATA) : Isopropanol  
Proper Shipping Name (ADN) : ISOPROPANOL (ISOPROPYL ALCOHOL)  
Proper Shipping Name (RID) : ISOPROPANOL (ISOPROPYL ALCOHOL)  
Transport document description (ADR) : UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II, (D/E)  
Transport document description (IMDG) : UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II (12°C c.c.)  
Transport document description (IATA) : UN 1219 Isopropanol, 3, II  
Transport document description (ADN) : UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II  
Transport document description (RID) : UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 3  
Danger labels (ADR) : 3



#### IMDG

Transport hazard class(es) (IMDG) : 3  
Danger labels (IMDG) : 3



#### IATA

Transport hazard class(es) (IATA) : 3  
Hazard labels (IATA) : 3



#### ADN

Transport hazard class(es) (ADN) : 3  
Danger labels (ADN) : 3



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### RID

Transport hazard class(es) (RID) : 3  
 Danger labels (RID) : 3



### 14.4. Packing group

Packing group (ADR) : II  
 Packing group (IMDG) : II  
 Packing group (IATA) : II  
 Packing group (ADN) : II  
 Packing group (RID) : II

### 14.5. Environmental hazards

Dangerous for the environment : No  
 Marine pollutant : No  
 Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : F1  
 Special provisions (ADR) : 601  
 Limited quantities (ADR) : 1I  
 Excepted quantities (ADR) : E2  
 Packing instructions (ADR) : P001, IBC02, R001  
 Mixed packing provisions (ADR) : MP19  
 Portable tank and bulk container instructions (ADR) : T4  
 Portable tank and bulk container special provisions (ADR) : TP1  
 Tank code (ADR) : LGBF  
 Vehicle for tank carriage : FL  
 Transport category (ADR) : 2  
 Special provisions for carriage - Operation (ADR) : S2, S20  
 Hazard identification number (Kemler No.) : 33  
 Orange plates :



Tunnel restriction code (ADR) : D/E  
 EAC code : •2YE

#### - Transport by sea

Limited quantities (IMDG) : 1 L  
 Excepted quantities (IMDG) : E2  
 Packing instructions (IMDG) : P001  
 IBC packing instructions (IMDG) : IBC02  
 Tank instructions (IMDG) : T4  
 Tank special provisions (IMDG) : TP1





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EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-D
Stowage category (IMDG)	: B
Flash point (IMDG)	: 12°C c.c.
MFAG-No	: 129

### - Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y341
PCA limited quantity max net quantity (IATA)	: 1L
PCA packing instructions (IATA)	: 353
PCA max net quantity (IATA)	: 5L
CAO packing instructions (IATA)	: 364
CAO max net quantity (IATA)	: 60L
Special provisions (IATA)	: A180
ERG code (IATA)	: 3L

### - Inland waterway transport

Classification code (ADN)	: F1
Special provisions (ADN)	: 601
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E2
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 1

### - Rail transport

Classification code (RID)	: F1
Special provisions (RID)	: 601
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02, R001
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T4
Portable tank and bulk container special provisions (RID)	: TP1
Tank codes for RID tanks (RID)	: LGBF
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE7
Hazard identification number (RID)	: 33

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

iso-PROPYL ALCOHOL For Synthesis is not on the REACH Candidate List

iso-PROPYL ALCOHOL For Synthesis is not on the REACH Annex XIV List



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### 15.1.2. National regulations

#### Germany

Reference to AwSV : Water hazard class (WGK) 1, Slightly hazardous to water (Classification according to AwSV; ID No. 135)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

#### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

#### Denmark

Class for fire hazard : Class I-1

Store unit : 1 liter

Classification remarks : F <Flam. Liq. 2>; Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Full text of R-, H- and EUH-statements:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
R11	Highly flammable
R36	Irritating to eyes
R67	Vapours may cause drowsiness and dizziness
F	Highly flammable
Xi	Irritant



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## Safety Data Sheet

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*