

# SAFETY DATA SHEET

**IPA**

Print Date 03.09.2021

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Version 3.1

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Trade name : IPA  
Product code : S1111, ZA07A  
CAS-No. : 67-63-0  
  
Synonyms : IPA, Isopropanol, Propan-2-ol, Propanol, sec-, Propyl alcohol, sec-, Dimethyl carbinol  
EC-No. : 200-661-7

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

Use of the Substance/Mixture : Industrial Solvent.  
Uses advised against : Advice in this document relates only to product as originally supplied. Other derivative chemicals will have different properties and hazards. Advice should be sought on their safe handling and use.

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

Manufacturer/Supplier : **SHELL MARKETS (MIDDLE EAST) LIMITED**  
CHEMICALS  
PO Box 307  
Jebel Ali, Dubai  
United Arab Emirates  
  
Telephone : +971 4 405 4400  
Telefax : +971 4 329 3311  
Email Contact for Safety Data Sheet :

### 1.4 Emergency telephone number

+ (65) 6542 9595 (Alert-SGS)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### GHS Classification

Flammable liquids : Category 2  
Eye irritation : Category 2A  
Specific target organ toxicity - single exposure (Inhalation, Oral) : Category 3 (Narcotic effects)

### 2.2 Label elements

# SAFETY DATA SHEET

IPA

Print Date 03.09.2021

Revision Date 29.10.2020

Version 3.1

## GHS-Labeling

Hazard pictograms



Signal word

: Danger

Hazard statements

: **PHYSICAL HAZARDS:**  
H225 Highly flammable liquid and vapour.  
**HEALTH HAZARDS:**  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.  
**ENVIRONMENTAL HAZARDS:**  
Not classified as an environmental hazard under GHS criteria.

Precautionary statements

: **Prevention:**  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P240 Ground and bond container and receiving equipment.  
P242 Use non-sparking tools.  
P243 Take action to prevent static discharges.  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash hands thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P370 + P378 In case of fire: Use appropriate media to extinguish.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P312 Call a POISON CENTER/ doctor if you feel unwell.  
**Storage:**  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P235 Keep cool.  
P405 Store locked up.  
**Disposal:**  
P501 Dispose of contents and container to appropriate waste site or reclaimer in accordance with local and national regulations.

## 2.3 Other hazards

# SAFETY DATA SHEET

**IPA**

Print Date 03.09.2021

Revision Date 29.10.2020

Version 3.1

Vapours are heavier than air. Vapours may travel across the ground and reach remote ignition sources causing a flashback fire danger.  
Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur.  
Slightly irritating to respiratory system.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

#### Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Isopropyl alcohol	67-63-0	<= 100

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice	: Not expected to be a health hazard when used under normal conditions.
Protection of first-aiders	: When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.
If inhaled	: Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.
In case of skin contact	: Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.
In case of eye contact	: Immediately flush eye(s) with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Transport to the nearest medical facility for additional treatment.
If swallowed	: If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing.

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

Symptoms	: Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-
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# SAFETY DATA SHEET

IPA

Print Date 03.09.2021

Revision Date 29.10.2020

Version 3.1

headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death.  
No specific hazards under normal use conditions.  
Skin irritation signs and symptoms may include a burning sensation, redness, or swelling.  
Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision.  
If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever.  
If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing.

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

Treatment : IMMEDIATE TREATMENT IS EXTREMELY IMPORTANT!  
Call a doctor or poison control center for guidance.  
Potential for chemical pneumonitis.  
Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.  
Unsuitable extinguishing media : None

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

Specific hazards during firefighting : The vapour is heavier than air, spreads along the ground and distant ignition is possible. Carbon monoxide may be evolved if incomplete combustion occurs.

### 5.3 Advice for firefighters

Special protective equipment for firefighters : Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).  
Specific extinguishing methods : Standard procedure for chemical fires.  
Further information : Clear fire area of all non-emergency personnel.  
Keep adjacent containers cool by spraying with water.

# SAFETY DATA SHEET

IPA

Print Date 03.09.2021

Revision Date 29.10.2020

Version 3.1

## SECTION 6: Accidental release measures

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

- Personal precautions : Observe the relevant local and international regulations  
Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.  
Local authorities should be advised if significant spillages cannot be contained.  
The vapour is heavier than air, spreads along the ground and distant ignition is possible.  
Vapour may form an explosive mixture with air.  
Avoid contact with skin, eyes and clothing.  
Isolate hazard area and deny entry to unnecessary or unprotected personnel.  
Stay upwind and keep out of low areas.

### 6.2 Environmental precautions

- Environmental precautions : Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment.  
Ventilate contaminated area thoroughly.  
Monitor area with combustible gas indicator.

### 6.3 Methods and materials for containment and cleaning up

- Methods for cleaning up : For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.  
For small liquid spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.

### 6.4 Reference to other sections

For guidance on selection of personal protective equipment see Section 8 of this Safety Data Sheet.,  
For guidance on disposal of spilled material see Section 13 of this Safety Data Sheet.

# SAFETY DATA SHEET

IPA

Print Date 03.09.2021

Revision Date 29.10.2020

Version 3.1

## SECTION 7: Handling and storage

General Precautions : Avoid breathing of or direct contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Section 8 of this Safety Data Sheet.  
Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.  
Ensure that all local regulations regarding handling and storage facilities are followed.

### 7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin, eyes and clothing.  
Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols.  
Bulk storage tanks should be diked (bunded).  
Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks.  
Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment to reduce the risk.  
The vapours in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flammable.  
Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.  
Do NOT use compressed air for filling, discharging, or handling operations.

Product Transfer : Refer to guidance under Handling section.

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

Requirements for storage areas and containers : The vapour is heavier than air. Beware of accumulation in pits and confined spaces. Refer to section 15 for any additional specific legislation covering the packaging and storage of this product.

Packaging material : **Suitable material:** For containers, or container linings use mild steel, stainless steel.  
**Unsuitable material:** Natural, butyl, neoprene or nitrile rubbers.

Container Advice : Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers.

### 7.3 Specific end use(s)

Specific use(s) : Not applicable

# SAFETY DATA SHEET

IPA

Print Date 03.09.2021

Revision Date 29.10.2020

Version 3.1

Ensure that all local regulations regarding handling and storage facilities are followed.  
See additional references that provide safe handling practices: American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practices on Static Electricity).  
IEC/TS 60079-32-1: Electrostatic hazards, guidance

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

#### Biological occupational exposure limits

No biological limit allocated.

#### Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods  
<http://www.cdc.gov/niosh/>

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods  
<http://www.osha.gov/>

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances  
<http://www.hse.gov.uk/>

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA) , Germany  
<http://www.dguv.de/inhalt/index.jsp>

L'Institut National de Recherche et de Sécurité, (INRS), France <http://www.inrs.fr/accueil>

### 8.2 Exposure controls

**Engineering measures** Use sealed systems as far as possible.

Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits.

Local exhaust ventilation is recommended.

Firewater monitors and deluge systems are recommended.

Eye washes and showers for emergency use.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:

# SAFETY DATA SHEET

IPA

Print Date 03.09.2021

Revision Date 29.10.2020

Version 3.1

## General Information:

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.

Practice good housekeeping.

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

## Personal protective equipment

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Eye protection : Wear goggles for use against liquids and gas.  
Wear full face shield if splashes are likely to occur.

## Hand protection

Remarks : Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. Longer term protection: Butyl rubber. Nitrile rubber. Incidental contact/Splash protection: PVC or neoprene rubber gloves. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

Skin and body protection : Wear antistatic and flame-retardant clothing, if a local risk assessment deems it so.  
Skin protection is not required under normal conditions of use. For prolonged or repeated exposures use impervious clothing over parts of the body subject to exposure.  
If repeated and/or prolonged skin exposure to the substance



# SAFETY DATA SHEET

IPA

Print Date 03.09.2021

Revision Date 29.10.2020

Version 3.1

is likely, then wear suitable gloves tested to relevant Standard, and provide employee skin care programmes.

Respiratory protection : If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are unsuitable (e.g. airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. If air-filtering respirators are suitable for conditions of use: Select a filter suitable for organic gases and vapours [Type A boiling point >65°C (149°F)].

Thermal hazards : Not applicable

## Environmental exposure controls

General advice : Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour. Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation. Information on accidental release measures are to be found in section 6.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : Liquid.

Colour : clear

Odour : characteristic

Odour Threshold : Data not available

pH : Not applicable

Melting point/freezing point : -88 °C

Boiling point/boiling range : 82 - 83 °C

Flash point : 12 °C  
Method: Abel

Evaporation rate : 1,5  
Method: ASTM D 3539, nBuAc=1

Flammability (solid, gas) : Not applicable

# SAFETY DATA SHEET

**IPA**

Print Date 03.09.2021

Revision Date 29.10.2020

Version 3.1

Upper explosion limit	: upper flammability limit 12 %(V)
Lower explosion limit	: Lower flammability limit 2 %(V)
Vapour pressure	: 4,1 kPa (20 °C)
Relative vapour density	: 2 (20 °C)
Relative density	: 0,78 - 0,79 (20 °C)
Density	: 785 - 786 kg/m <sup>3</sup> (20 °C) Method: ASTM D4052
Solubility(ies)	
Water solubility	: completely miscible
Solubility in other solvents	: Readily soluble in various organic solvents.
Partition coefficient: n-octanol/water	: log Pow: 0,05
Auto-ignition temperature	: 425 °CMethod: ASTM D-2155
Decomposition temperature	: Data not available
Viscosity	
Viscosity, dynamic	: 2,43 mPa.s
Viscosity, kinematic	: Data not available
Explosive properties	: Not classified
Oxidizing properties	: Not applicable

## 9.2 Other information

Surface tension	: 22,7 mN/m, 20 °C
Conductivity	: Electrical conductivity: > 10,000 pS/m  A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid, This material is not expected to be a static accumulator.
Molecular weight	: 60,1 g/mol

# SAFETY DATA SHEET

IPA

Print Date 03.09.2021

Revision Date 29.10.2020

Version 3.1

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.

### 10.2 Chemical stability

No hazardous reaction is expected when handled and stored according to provisions

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Reacts with strong oxidising agents.

### 10.4 Conditions to avoid

Conditions to avoid : Avoid heat, sparks, open flames and other ignition sources.  
Prevent vapour accumulation.  
In certain circumstances product can ignite due to static electricity.

### 10.5 Incompatible materials

Materials to avoid : Strong oxidising agents.

### 10.6 Hazardous decomposition products

Hazardous decomposition products : Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases including carbon monoxide, carbon dioxide, sulphur oxides and unidentified organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Basis for assessment : Information given is based on product testing.

Information on likely routes of exposure : Exposure may occur via inhalation, ingestion, skin absorption, skin or eye contact, and accidental ingestion.

### Acute toxicity

#### Product:

Acute oral toxicity : LD50 Rat: > 5000 mg/kg  
Remarks: Low toxicity:

Acute inhalation toxicity : Remarks: Low toxicity by inhalation.

## SAFETY DATA SHEET

IPA

Print Date 03.09.2021

Revision Date 29.10.2020

Version 3.1

Acute dermal toxicity : LD50 Rabbit: > 5000 mg/kg  
Remarks: Low toxicity:

**Skin corrosion/irritation****Product:**

Remarks: Not irritating to skin.

**Serious eye damage/eye irritation****Product:**

Remarks: Causes serious eye irritation.

**Respiratory or skin sensitisation****Product:**

Remarks: Not a sensitiser., Based on available data, the classification criteria are not met.

**Germ cell mutagenicity****Product:**

: Remarks: Not mutagenic.

**Carcinogenicity****Product:**

Remarks: Not a carcinogen.

Material	GHS/CLP Carcinogenicity Classification
Isopropyl alcohol	No carcinogenicity classification.

Material	Other Carcinogenicity Classification
Isopropyl alcohol	IARC: Group 3: Not classifiable as to its carcinogenicity to humans

**Reproductive toxicity****Product:**

Remarks: Does not impair fertility., Not a developmental toxicant., Based on available data, the classification criteria are not met.

**STOT - single exposure**

# SAFETY DATA SHEET

IPA

Print Date 03.09.2021

Revision Date 29.10.2020

Version 3.1

## **Product:**

Remarks: May cause drowsiness and dizziness.

## **STOT - repeated exposure**

### **Product:**

Remarks: Kidney: caused kidney effects in male rats which are not considered relevant to humans

## **Aspiration toxicity**

### **Product:**

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

## **Further information**

### **Product:**

Remarks: Exposure may enhance the toxicity of other materials., Classifications by other authorities under varying regulatory frameworks may exist.

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## **SECTION 12: Ecological information**

### **12.1 Toxicity**

Basis for assessment : Information given is based on product testing.  
**Product:**

Toxicity to fish (Acute toxicity) : Remarks: Practically non toxic:  
LL/EL/IL50 > 100 mg/l

Toxicity to daphnia and other aquatic invertebrates (Acute toxicity) : Remarks: Practically non toxic:  
LL/EL/IL50 > 100 mg/l

Toxicity to algae (Acute toxicity) : Remarks: Practically non toxic:  
LL/EL/IL50 > 100 mg/l

Toxicity to fish (Chronic toxicity) : Remarks: Data not available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: Data not available

Toxicity to bacteria (Acute toxicity) : Remarks: Practically non toxic:

# SAFETY DATA SHEET

**IPA**

Print Date 03.09.2021

Revision Date 29.10.2020

Version 3.1

LL/EL/IL50 &gt; 100 mg/l

## 12.2 Persistence and degradability

### Product:

Biodegradability : Remarks: Readily biodegradable., Oxidises rapidly by photo-chemical reactions in air.

no data available

## 12.3 Bioaccumulative potential

### Product:

Bioaccumulation : Remarks: Does not bioaccumulate significantly.

Partition coefficient: n-octanol/water : log Pow: 0,05

## 12.4 Mobility in soil

### Product:

Mobility : Remarks: Dissolves in water., If the product enters soil, one or more constituents will or may be mobile and may contaminate groundwater.

## 12.5 Results of PBT and vPvB assessment

no data available

## 12.6 Other adverse effects

### Product:

Additional ecological information : Does not have ozone depletion potential.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Recover or recycle if possible.  
It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.  
Do not dispose into the environment, in drains or in water courses  
Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment.  
Waste, spills or used product is dangerous waste.

Disposal should be in accordance with applicable regional,

# SAFETY DATA SHEET

**IPA**

Print Date 03.09.2021

Revision Date 29.10.2020

Version 3.1

national, and local laws and regulations.  
Local regulations may be more stringent than regional or national requirements and must be complied with.

Contaminated packaging : Drain container thoroughly.  
After draining, vent in a safe place away from sparks and fire.  
Residues may cause an explosion hazard.  
Do not, puncture, cut, or weld uncleaned drums.  
Send to drum recoverer or metal reclaimer.

Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand.

Local legislation

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## SECTION 14: Transport information

### 14.1 UN number

**ADR** : 1219  
**IMDG** : 1219  
**IATA** : 1219

### 14.2 Proper shipping name

**ADR** : ISOPROPANOL  
**IMDG** : ISOPROPANOL  
**IATA** : ISOPROPANOL

### 14.3 Transport hazard class

**ADR** : 3  
**IMDG** : 3  
**IATA** : 3

### 14.4 Packing group

**ADR**  
Packing group : II  
Classification Code : F1  
Hazard Identification Number : 33  
Labels : 3  
**IMDG**  
Packing group : II  
Labels : 3  
**IATA**  
Packing group : II  
Labels : 3

### 14.5 Environmental hazards

**ADR**  
Environmentally hazardous : no  
**IMDG**  
Marine pollutant : no

# SAFETY DATA SHEET

IPA

Print Date 03.09.2021

Revision Date 29.10.2020

Version 3.1

## 14.6 Special precautions for user

Remarks : Special Precautions: Refer to Section 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

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

Pollution category : Z  
Ship type : 3  
Product name : Isopropyl alcohol

**Additional Information** : This product may be transported under nitrogen blanketing. Nitrogen is an odourless and invisible gas. Exposure to nitrogen enriched atmospheres displaces available oxygen which may cause asphyxiation or death. Personnel must observe strict safety precautions when involved with a confined space entry.

## SECTION 15: Regulatory information

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

Other regulations : The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

#### The components of this product are reported in the following inventories:

AIIC : Listed  
DSL : Listed  
IECSC : Listed  
ENCS : Listed  
KECI : Listed  
NZIoC : Listed  
PICCS : Listed  
TSCA : Listed  
TCSI : Listed

## SECTION 16: Other information

Abbreviations and Acronyms : The standard abbreviations and acronyms used in this document can be looked up in reference literature (e.g. scientific dictionaries) and/or websites.

ACGIH = American Conference of Governmental Industrial Hygienists  
ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road  
AICS = Australian Inventory of Chemical Substances  
ASTM = American Society for Testing and Materials  
BEL = Biological exposure limits



# SAFETY DATA SHEET

IPA

Print Date 03.09.2021

Revision Date 29.10.2020

Version 3.1

BTEX = Benzene, Toluene, Ethylbenzene, Xylenes  
CAS = Chemical Abstracts Service  
CEFIC = European Chemical Industry Council  
CLP = Classification Packaging and Labelling  
COC = Cleveland Open-Cup  
DIN = Deutsches Institut für Normung  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
DSL = Canada Domestic Substance List  
EC = European Commission  
EC50 = Effective Concentration fifty  
ECETOC = European Center on Ecotoxicology and  
Toxicology Of Chemicals  
ECHA = European Chemicals Agency  
EINECS = The European Inventory of Existing Commercial  
Chemical Substances  
EL50 = Effective Loading fifty  
ENCS = Japanese Existing and New Chemical Substances  
Inventory  
EWC = European Waste Code  
GHS = Globally Harmonised System of Classification and  
Labelling of Chemicals  
IARC = International Agency for Research on Cancer  
IATA = International Air Transport Association  
IC50 = Inhibitory Concentration fifty  
IL50 = Inhibitory Level fifty  
IMDG = International Maritime Dangerous Goods  
INV = Chinese Chemicals Inventory  
IP346 = Institute of Petroleum test method N° 346 for the  
determination of polycyclic aromatics DMSO-extractables  
KECI = Korea Existing Chemicals Inventory  
LC50 = Lethal Concentration fifty  
LD50 = Lethal Dose fifty per cent.  
LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading  
LL50 = Lethal Loading fifty  
MARPOL = International Convention for the Prevention of  
Pollution From Ships  
NOEC/NOEL = No Observed Effect Concentration / No  
Observed Effect Level  
OE\_HP V = Occupational Exposure - High Production Volume  
PBT = Persistent, Bioaccumulative and Toxic  
PICCS = Philippine Inventory of Chemicals and Chemical  
Substances  
PNEC = Predicted No Effect Concentration  
REACH = Registration Evaluation And Authorisation Of  
Chemicals  
RID = Regulations Relating to International Carriage of  
Dangerous Goods by Rail  
SKIN\_DES = Skin Designation  
STEL = Short term exposure limit  
TRA = Targeted Risk Assessment  
TSCA = US Toxic Substances Control Act  
TWA = Time-Weighted Average  
vPvB = very Persistent and very Bioaccumulative

# SAFETY DATA SHEET

**IPA**

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Version 3.1

## Further information

- Training advice : Provide adequate information, instruction and training for operators.
- Other information : A vertical bar (|) in the left margin indicates an amendment from the previous version.
- Sources of key data used to compile the Safety Data Sheet : The quoted data are from, but not limited to, one or more sources of information (e.g. toxicological data from Shell Health Services, material suppliers' data, CONCAWE, EU IUCLID date base, EC 1272 regulation, etc).

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.