SAFETY DATA SHEET

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070 Acetone 100%

1. SUBSTANCE AND COMPANY IDENTIFICATION

Substance Identification: Acetone 100%

Synonym Dimethylketone ; 2-Propanone

Recommended use: Laboratory chemical.
Laboratory analytical use.
Professional use.

Restriction on use: Do not use for products in contact with foodstuff.
Do not use for private purposes.

Supplier:
iSolvents
Plot 62
Kameelfontein
Pretoria
0075
South Africa
Tel +27(0)12 012 5157

Emergency Telephone Numbers: Rapid Spill Response 0800172743

2. HAZARD IDENTIFICATION

Classification according to SANS10228

Hazard class	Category	Hazard class and category	Hazard statement
Flammable liquid	2	Flammable Liquid 2	H225
Serious eye damage/eye irritation	2	Eye Irritant 2	H319
Specific target organ toxicity – narcotic effects	3	STOT – single exposure 3	H336

The most important adverse physical hazard, human health hazard and environmental hazard
The product is combustible and can be ignited by potential ignition sources
The product is toxic when taken into the body

Label elements according to the Global Harmonized System

Signal word **Danger**

Pictograms
GHS02,GHS07

Hazard statements

H225	Highly flammable liquid and vapour
H316	Causes mild skin irritation
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness

Precautionary statements

Prevention statements

P210	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking
P240+P241+P242+ P243	Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools. Take precautionary measures against static discharge.
P261+P271	Avoid breathing gases and vapours. Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P403+P233+P235	Store in a well-ventilated space. Keep container tightly closed. Keep cool.

Response statements

P332+P317	IF SKIN irritation occurs: get emergency medical help
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P319	Get medical help if you feel unwell.
P501	Dispose of contents and container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance	Chemical identity	Common name	EC-No	CAS-No	Index-No	Reach Reg. No
1) 100% volume	2-propanone	Acetone	200-662-2	67-64-1	606-001-00-8	01-2119471330-49-xxxx

4. FIRST AID

Eye Contact	Immediately irrigate with clean, fresh water whilst holding the eyelids apart, for at least 10 minutes. If eye irritation persists consult and ophthalmologist.
Inhalation	Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.
Skin Contact	Rinse skin with water. Take off contaminated clothing
Ingestion	Rinse mouth. Call a doctor if you feel unwell.
Notable symptoms, acute and delayed	Irritation, Nausea, Vomiting, Drowsiness, Narcosis.
Further medical remarks	No known systemic effects.

5. FIRE FIGHTING

Extinguishing media

Suitable extinguishing media	Class B fire extinguishers, carbon dioxide (CO2) fire extinguishers, dry extinguishing powder, alcohol resistant foam, water spray.
Unsuitable extinguishing media	Water jet
Special hazards arising from the substance	Combustible. Release of carbon oxides. In the case of insufficient ventilation it may form explosive vapour mixtures with the air. Vapours are heavier than air so it spreads along the floors.
Special protective equipment and precautions for fire-fighters	In the case of fire or explosions do not breathe in the fumes. Fight fire with the normal precautions from a reasonable distance. Wear self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:	For non-emergency personnel Avoid contact with skin, eyes and clothes. Do not breathe in vapour or spray. Avoid sources of ignition.
Environmental precautions:	Keep away from drains, surface, and ground water. Retain contaminated water and dispose of it with the substance.
Methods and material for containment and cleaning up:	1. Wear full protective clothing 2. Contain a spill by covering drains 3. Absorb with liquid-binding material like sand or universal binding agents that are inert (sand, silica gel, acid binder sawdust). 4. Place spillage in appropriate disposal container 5. Ventilate affected area.

7. HANDLING AND STORAGE

Precautions for safe handling:

Advice on safe handling	Make provision for ventilation. Do not leave containers open when they can be closed.
Measures to prevent fire as well as aerosol generation	Provide sufficient ventilation. Keep away from sources of ignition. No smoking. Take precautionary measures against static discharge. Due to danger of explosion always prevent leakage of vapours into ditches.

Advice on general occupational hygiene	Wash hands before breaks and after work. Keep away from food, drink and animal feed when handling. When using do not smoke.

Conditions for safe storage, including incompatibilities:

Safe storage	Store in a well-ventilated place. Use local and general ventilation. Keep container tightly closed.
Storage temperature	Between 15-25°C
Incompatible substances or mixtures	None

8. EXPOSURE CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT

Control parameters

Occupational Exposure Limit Values				
Country	**Name of agent**	**CAS No**	**Time Weighted Average (ppm)**	**Short-term Exposure Limits (ppm)**
RSA	Acetone	67-64-1	500	750

TWA: Time-weighted average (long-term exposure limit) measured with a reference period of 8 hours.
STEL: Short-term exposure limit above which exposure should not occur within a 15-minute period.

Individual protection measures

Protective equipment	Eye protection: safety goggles with side protection Skin protection: suitable gloves made out of butyl rubber of 0.7mm thickness Wear flame retardant protective clothing Respiratory protection: only necessary to wear when the substance forms an aerosol or mist. Then wear an N95 mask or respirator.
Other protection measures	Take recovery periods for skin regeneration if the skin is damaged. Wash hands before breaks and at the end of the day. Use creams as a barrier to exposure
Environmental exposure Control	Keep away from drains and ground water.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid at 20°C, 1,013 hPa
Colour	Colourless
Odour	Mild sweetness - fruity
pH	5-6 (20°C)
Melting point / freezing point	-94,8°C
Initial boiling point and boiling range	56.05°C at 1.013 hPa
Flash point	-17°C (closed cup)
Evaporation rate	170 times higher than water
Flammability	Flammable liquid in accordance with GHS criteria
Upper and lower explosive limits	12,8 vol% (UEL) and 2,6 vol% (LEL)
Vapour pressure	240 hPa at 20°C
Vapour density	2.01 (twice as heavy as air)
Density	0.79 kg/dm^3 at 20°C
Partition coefficient	-0,23 (log value)
Auto-ignition temperature	465°C
Decomposition temperature	Not Relevant
Viscosity	0,32 mPa s at 20°C

10. STABILITY AND REACTIVITY

Reactivity	It's a reactive substance. There is risk of ignition. Vapours may form explosive mixtures with air.
Chemical stability	The material is stable under normal temperature and pressure, in ambient, anticipated storage and handling conditions.
Possibility of hazardous reactions	Exothermic reaction with alkali metals, alkali hydroxide, bromine and halogenated hydrocarbons. Ignites with strong oxidisers, reducing agents, nitric acid and chromium oxide.
Conditions to avoid	Keep away from heat, hot surfaces, sparks and open flames. No smoking
Incompatible materials	Plastic and rubber
Hazardous decomposition products	None

11. TOXICOLOGY

Hazard classification according to GHS

Acute toxicity	Shall not be classified as acutely toxic

Isopropyl Alcohol Toxicity

Exposure route	Toxicity value
Oral	5.8mg per kg

Skin corrosion/irritation
Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation
Causes serious eye irritation

Respiratory or skin sensitisation
Shall not be classified as a respiratory or skin sensitiser

Germ cell mutagenicity
Shall not be classified as germ cell mutagen

Carcinogenicity
Shall not be classified as carcinogenic

Reproductive toxicity
Shall not be classified as a reproductive toxicant

Single exposure for specific target organ
May cause drowsiness or dizziness

Repeated exposure for specific target organ
Shall not be classified as a specific target organ toxicant for repeated exposure

Aspiration hazard
Shall not be classified as presenting an aspiration hazard

Endocrine disrupting properties
None

Symptoms related to the physical, chemical and toxicological characteristics	
If swallowed	Vomiting and nausea and gastrointestinal complaints.
If in eyes	Causes serious eye irritation. Corneal opacity.
If inhaled	Headache, vertigo, dizziness, fatigue, and narcosis.
If on skin	Prolonged or repeated skin contact may cause skin dryness and cracking

12. ECOLOGY

Toxicity classification according to GHS

Toxicity Shall not be classified as hazardous to the aquatic environment

Aquatic toxicity of Isopropyl Alcohol		
Toxicity value	**Species**	**Exposure time**
5.54mg per litre	fish	96 hours
-	Aquatic invertebrates	-

-	algae	-

Persistence and degradability The substance is readily biodegradable. Releasing 90% carbon dioxide over a period of 28 days.

Bio-accumulative potential It does not significantly accumulate in organisms

Mobility in soil 2.9 cubic metres per mole at 25°C

Endocrine disrupting properties None

13. DISPOSAL CONSIDERATIONS

Waste treatment methods The material and containers must be disposed of as hazardous waste, in accordance with local and national regulations.

Waste residues The material, and its waste residues, and its container must be disposed of as hazardous waste in accordance with SANS10234.

Safe Handling Do not empty into drains. Completely emptied containers can be recycled. Handle contaminated packages as you handle the waste itself. Product waste must be segregated and handled separately by local and national waste management facilities.

Methods of disposal The waste drums must be given a serial number to identify it, its location, and its contents. Product waste can be landfilled or treated.

Contaminated packaging Dispose of with the waste.

14. TRANSPORT

Road, sea and air shipping codes
ADRRID – transport of dangerous goods by road
IMDG-Code – International Maritime Dangerous Goods for Marine environment
ICAO-TI – International Civil Aviation Organization

Isopropyl Alcohol (IPA)

UN number or ID number

ADRIDD	UN1090
IMDG-Code	UN1090
ICAO-TI	UN1090

UN proper shipping name

ADRRID	ACETONE
IMDG-Code	ACETONE
ICAO-TI	Acetone

Transport hazard class(es)

ADRRID	
IMDG-Code	3
ICAO-TI	3
	3

Packaging group

ADRRID	
IMDG-Code	II
ICAO-TI	II
	II

Danger label(s)

15. REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question

Regulatory reference	SANS 10234; SANS 11014; SANS 10228; SANS 10229; SANS10231/2/3; Occupational Health and Safety Act 85 of 1993; National Road Traffic Act 93 of 1996

16. OTHER

Labelling according to SA directives.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release, and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.

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Full text of H-statements

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