Ecoflores
ul. Waksmundzka 34,
34-400 Nowy Targ, Poland
tel. +48-604508229
kontakt@ecoflores.eu
www.ecoflores.eu

Version: IX

Date of compilation: 03.01.2000
Revision date: 28.02.2023

Safety Data Sheet

legal basis:
Commission regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

1.1.Product identifier

Trade name:	iso-propyl alcohol
REACH registration number	01-2119457558-25-XXXX
Composition for label/Other name(s)	2-propanol, isopropanol, IPA.,

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

Identified uses
Industrial uses:
intermediate, distribution, formulation and repackaging, use in coatings, use in cleaning agents, lubricants, Drilling and extraction works in oil fields. use in metal working fluids, use as binders and release agents, fuels, use in functional fluids, Laboratory chemicals, Water treatment.

Professional uses:
use in coatings, use in cleaning agents, lubricants, use in metal working fluids, use as binders and release agents, Use in chemistry for agriculture. fuels, use in functional fluids, Anti-Freeze and de-icing products. Laboratory chemicals, Water treatment.

Consumer uses:
use in coatings, use in cleaning agents, lubricants, Use in chemistry for agriculture. fuels, use in functional fluids, Anti-Freeze and de-icing products. Water treatment. other consumer uses

Uses advised against:
other than named above

1.3. Details of the supplier of the safety data sheet

Name and address:	Ecoflores ul. Waksmundzka 34, 34-400 Nowy Targ, Poland
Phone number:	tel. +48-604508229
Fax number:	
e-mail address for a competent person responsible for the safety data sheet:	kontakt@ecoflores.eu www.ecoflores.eu

1.4. Emergency telephone number

998 or 112, or contact with the nearest local Fire Department

SECTION 2:Hazards identification

2.1.Classification of the substance or mixture

General hazards
This product is classified as hazardous according to current regulations

Health hazards

Eye Irrit. 2	Eye irritation, Category 2	H319 Causes serious eye irritation
STOT SE 3	Specific target organ toxicity — single exposure, Category 3	H336 May cause drowsiness or dizziness

Physical hazards

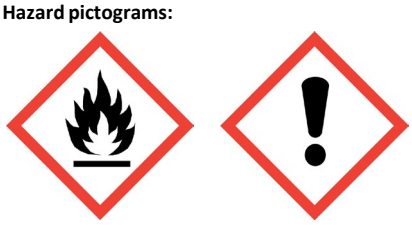
Flam. Liq. 2	Flammable liquid, Category 2	H225 Highly flammable liquid and vapour

Environmental hazards

not applicable

2.2. Label elements

Hazard pictograms:



Signal Word:
Danger

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

Precautionary statements:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243 Take action to prevent static discharges.
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.
P501a Dispose of contents/container to licensed waste disposal plant

2.3. Other hazards
This substance does not fullfill the PBT or vPvB criteria accorging to Annex XIII to REACH Regulation (EC) 1907/2006
Vapors may produce explosive mixtures with air at temperatures over the flame point.

SECTION 3:Composition/information on ingredients

3.1.Substances

Concentration value	Substance	CAS	EC	Index number	REACH registration number	Hazard class
> 99,7 %	Isopropyl alcohol	67-63-0	200-661-7	603-117-00-0	01-2119457558-25-XXXX	Flam. Liq. 2 H225 Eye Irrit. 2 H319 STOT SE 3 H336

See Section 16 for the full text of the H statements

SECTION 4:First aid measures

4.1.Description of first aid measures

Inhalation
Move the victim to fresh air. If breathing is stopped, administer artificial respiration. Ensure doctor's assistance.
Skin contact
Remove all contaminated clothing. Wash off with soap and plenty of water. If symptoms of irritation occur consult a doctor
Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Continue rinsing. Immediately ensure a physician aid. Ensure oculist consultation.
Ingestion
Do NOT induce vomiting. Rinse mouth with water. Drink plenty of water. Never give anything by mouth to an unconscious person. Do not give milk. Do not give oils. If any symptoms occur consult with a physician.

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

Symptoms and effects of exposure
Inhalation
in high concentrations, central nervous system depression, dizziness, Headache, nausea, loss of coordination, loss of consciousness, death
Skin contact
stinging, reddening, oedema
Eye contact
stinging, reddening, oedema, blurred vision
Ingestion
The risk of aspiration into the lungs during of vomiting. cough, dyspnoea, Wheezing. breathing difficulties, Chest congestion. fever

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

Treat symptomatically. Watch victim for several hours because of possible delayed signs of poisoning. In case of aspiration can cause chemical pneumonia.

SECTION 5:Firefighting measures

5.1.Extinguishing media

Suitable extinguishing media
water spray jet, dry chemical, foam, water fog. carbon dioxide (CO2), sand

Unsuitable extinguishing media
Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Highly flammable liquid.
Fire may produce: carbon oxides. carbon dioxide (CO2)
Vapors are heavier than air and may spread and accumulate above the ground.

5.3. Advice for firefighters

Containers exposed to fire or high temperature cool by spraying water from a safe distance. Prevent extinguishing media from entering the sewerage system, surface or ground water system. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Use respiratory protection.

SECTION 6:Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid contact with released product. Do not breathe in fumes. Ensure adequate ventilation. Prevent unauthorised persons entering the danger zone. Keep people away from and upwind of spill/leak.

6.2. Environmental precautions

Do not allow contact with soil, surface or ground water. Prevent from entering the sewerage system, ditches or rivers by using sand, soil or other suitable barriers. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods and material for containment and cleaning up

Large spills should be collected mechanically (remove by pumping) for disposal.
Cover residues with a non-combustible sorption material (e.g. sand, earth, universal biders), Pick up and transfer to properly labelled containers. Transfer for disposal.

6.4. Reference to other sections

More information about suitable personal protective equipment is given in section 8 .
Dispose of in accordance with the recommendations given in Section 13.

SECTION 7:Handling and storage

7.1.Precautions for safe handling

Avoid eyes, skin and clothing contamination. Ensure suitable ventilation. Do not breathe vapours. Smoking, eating and drinking should be prohibited in the application area. Wash hands before every break and after work. Remove and wash contaminated clothing before re-use. Eliminate all sourse of ignition. No smoking. Do NOT use compressed air for filling, discharging, or handling. Take precautionary measures against static discharges. Store in a warehouse with explosion protection light system. No cutting, drilling, grinding and/or welding is allowed on containers/tanks which have not been cleaned.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Store in temperatures: 5°C, to, 25°C, Keep away from heat, flame sparks and other ignition sources. Protect from direct sunlight. Store away from incompatible materials (see section 10 of MSDS). Keep away from food, drink and animal feed.
Suitable Materials and Coatings: Mild steel. Stainless steel.
Unsuitable Materials and Coatings: Nutural rubber. Butyl rubber. Neoprene. Nitrile rubber.

7.3. Specific end use(s)

See section 1.2.

SECTION 8:Exposure controls/personal protection

8.1.Control parameters

DNEL value

Isopropyl alcohol	DNEL value	for workers	through skin contact	Long-term exposure	Systemic effects	888 mg/kg bw/day
	DNEL value	for workers	by inhalation	Long-term exposure	Systemic effects	500 mg/m³
	DNEL value	for consumers	through skin contact	Long-term exposure	Systemic effects	319 mg/kg bw/day
	DNEL value	for consumers	by inhalation	Long-term exposure	Systemic effects	89 mg/m³
	DNEL value	for consumers	after ingestion	Long-term exposure	Systemic effects	26 mg/kg bw/day

PNEC value

Isopropyl alcohol	PNEC value	Fresh water	140,9 mg/l
	PNEC value	Marine water	140,9 mg/l
	PNEC value	Sediment (Fresh water)	552 mg/kg
	PNEC value	Sediment (Marine water)	552 mg/kg
	PNEC value	Soil	28 mg/kg
	PNEC value	Intermittent releases	140,9 mg/l
	PNEC value	Sewage treatment plant (STP)	2 251 mg/l

Occupational exposure limits

Isopropyl alcohol	Substance labeled with notation "skin"	NDS	900 mg/m³
	Substance labeled with notation "skin"	NDSCH	1 200 mg/m³

Comments
Poland. OELs - Regulation of the Minister of Family, Labour and Social Policy, of 12 June 2018; Journal of Laws 2018, item 1286 as amended.

labeled substance with the notation "skin" means that the absorption of substances through the skin may be just as important as by inhalation.

Biological limit values comments
not available

Recommended monitoring procedures
Regulation of the Minister of Health on tests and measurements applicable for hazardous substances and other adverse factors which are present in the workplace, of 2 February 2011 (Journal of Laws No33, item 166).

8.2.Exposure controls

Appropriate engineering controls

Explosion proof exhaust ventilation.
Effective exhaust ventilation system
Ensure that eye flushing systems and safety showers are located close to the working place.

Individual protection measures
Respiratory protection
Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust). Mask with filter:
Recommended Filter type:A in accordance with standard EN 14387
Combination filter: Filter type A/P2 or ABEK-P2-filter in accordance with standard EN 14387

Eye /face protection
Safety glasses with side-shields conforming to EN166

Skin and hand protection
Protective gloves complying with EN 374. Nitryl rubber gloves Layer thickness >= 0,35mm Break through time 8 h
Butyl rubber gloves Layer thickness >= 0,5mm Break through time 8 h
Polichloprene gloves Layer thickness >= 0,5mm Break through time 4 h
Unsuitable material PVC Natural Rubber Latex gloves

Other protection equipment
Antistatic protective clothing.

Reference to regulations
Individual protection measures should satisfy the requirements specified in the Regulation (EU) 2016/425 of the European Parliament and of the Council on basic requirements for personal protective equipment, of 9 March 2016.

General advice
When using do not eat or drink. Wash hands before breaks and at the end of workday. Avoid eyes, skin and clothing contamination. Remove and wash contaminated clothing before re-use.

Environ. exposure controls
Prevent entry into drains, waterways, sewers and soil.

SECTION 9:Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid		
Appearance:	colorless	clear	
		Odour threshold:	
Odour:	characteristic, alcohol-like	no data available	
Melting point/freezing point:	-89 °C		
Boiling point or initial boiling point and boiling range:	82 - 83 °C		
Flammability:	flammable		
Lower and upper explosion limit:	2 % vol - 12 % vol		
Flash point:	12 °C		
Auto-ignition temperature:	425 °C		
Decomposition temperature:	no data available		
pH:	no data available		
Kinematic viscosity:	no data available		
Solubility:	Water.	20 °C	completely miscible.
	organic solvents		most organic solvents soluble
Partition coefficien: n-octanol/water (log value):	0,05		
Vapour pressure:	4,1 kPa	20 °C	
	60,2 hPa	25	
Density and/or relative density:	Density	785 - 786 kg/m³	20 °C
Relative vapour density:	2		

Particle characteristics:	not applicable

9.2. Other information

Information with regard to physical hazard classes:	Surface tension:	22,7 mN/m	20 °C
	Molecular weight	60,1 g/mol	

SECTION 10:Stability and reactivity

10.1.Reactivity
Vapours may form explosive mixture with air.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
Reacts with: Strong oxidizing agents. Strong acids.

10.4. Conditions to avoid
Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5. Incompatible materials
Strong oxidizing agents. Strong acids. Alkaline earth metals. Aluminium. Iron. Amines.

10.6. Hazardous decomposition products
In case of fire hazardous decomposition products may be produced such as: Carbon dioxide. Carbon monoxide.

SECTION 11:Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity

Isopropyl alcohol	LD50	5 840 mg/kg	Rat	OECD Test Guideline 401

Acute dermal toxicity

Isopropyl alcohol	LD50	13 900 mg/kg	Rabbit	OECD Test Guideline 402

Acute inhalation toxicity

Isopropyl alcohol	LC50	> 25 mg/l	6 h	OECD Test Guideline 403

Acute toxicity - other exposure routes

No data available.

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/irritation

irritant effects

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Skin sensitisation

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Isopropyl alcohol	in vitro assay In vitro Mammalian Cell Gene Mutation Test	Hamster	OECD Test Guideline 476	nagative
	Ames test In vitro gene mutation study in bacteria		OECD Test Guideline 471	nagative
	Micronucleus test in vivo assay	Mouse	OECD Test Guideline 474	nagative

Summary
Based on available data, the classification criteria are not met.

Carcinogenicity

Summary
Based on available data, the classification criteria are not met.

Reproductive toxicity

Summary
Based on available data, the classification criteria are not met.

STOT-single exposure

Summary
May cause drowsiness or dizziness

STOT-repeated exposure

Summary
Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on likely routes of exposure
Inhalation.
Ingestion.
Skin contact.

Symptoms related to the physical, chemical and toxicological characteristics
Inhalation.
Headache
nausea
dizziness
altered state of consiciousness
Ingestion.
nausea
vomiting
stomach ache
gastrointestinal discomfort
Drop in blood pressure.
ingestion of large amounts
altered state of consiciousness
breathing problems
death
The risk of aspiration into the lungs during of vomiting.
renal injury
liver injury
skin irritation
in case of prolonged exposure
defatting
dermatitis

Delayed and immediate effects as well as chronic effects from short and long-term exposure
no data available

11.2. Information on other hazards

Other information
no data available

SECTION 12:Ecological information

12.1.Toxicity

Isopropyl alcohol	Toxicity to algae	EC50	1 800 mg/l	7 days	
	Toxicity to daphnia	EC50	10 000 mg/l	48 h	Daphnia magna (Water flea)
	Toxicity to fish	LC50	9 640 mg/l	96 h	
	Toxicity to plants	IC50	2 104 mg/kg	3 days	

12.2. Persistence and degradability

Summary
Readily biodegradable

12.3. Bioaccumulative potential

Isopropyl alcohol	LogPow	< 1

Summary
Does not bioaccumulate.

12.4. Mobility in soil

Summary
This product is soluble in water. Product penetrates into the soil.

12.5. Results of PBT and vPvB assessment
This substance does not fullfill the PBT or vPvB criteria accorging to Annex XIII to REACH Regulation (EC) 1907/2006

12.6. Endocrine disrupting properties
no data available

12.7. Other adverse effects
Do not allow the product to reach sewage system or ground or surface waters.

SECTION 13:Disposal considerations

13.1.Waste treatment methods

Waste Disposal Law, of 14 December 2012 (Journal of Laws 2013, item 21), with further amendments. Law on packages and spent packages, of 13 June 2013 (Journal of Laws 2013, item 888).
Regulation of the Minister of Environment on Wastes catalogue, of 9 December 2014 (Journal of Laws 2014, item 1923).
Suggested waste code: 07 01 04* Other organic solvents, washing liquids and mother liquors.
Dispose of in accordance with current legislation concerning Waste disposal. Waste packaging should be recycled. Packaging that can not be cleaned, should be disposed of like the product.

SECTION 14:Transport information

14.1.UN number or ID number

Transport type	UN Number
ADR	1219
RID	1219
IMDG	1219
ICAO	1219
ADN	N/A

14.2. UN proper shipping name

Transport type	UN proper shipping name
ADR	1219 Isopropanol (isopropyl alcohol)
RID	1219 Isopropanol (isopropyl alcohol)
IMDG	1219 Isopropanol (isopropyl alcohol)
ICAO	1219 Isopropanol (isopropyl alcohol)
ADN	not available

14.3. Transport hazard class(es)

Transport type	Transport hazard class:	Classification code:	Hazard identification number:	Tunnel restriction code:	Labels numbers:
ADR	3	F1	33	D/E	3
RID	3				3
IMDG	3				3
ICAO	3				3
ADN	not available				

14.4. Packing group

Transport type	Packing group:
ADR	II
RID	II
IMDG	II
ICAO	II
ADN	not available

14.5. Environmental hazards

The product does not pose a hazard to the environment in accordance with the criteria of the UN Model Regulations.

14.6. Special precautions for user

EmS: F-E, S-D

14.7. Maritime transport in bulk according to IMO instruments

not available

SECTION 15:Regulatory information

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

ACT of 25 February 2011 on the chemical substances and their mixtures (Journal of Laws No. 63, item 322), with further amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ L 353, 31.12.2008, p. 1). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR)

15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance.

SECTION 16:Other information

Changes of previous version

General revision

Key or legend to abbreviations and acronyms used in the safety data sheet

STOT RE - Specific target organ toxicity — repeated exposure
Asp. Tox. - Aspiration hazard
Aquatic Acute - Hazardous to the aquatic environment - Acute
Aquatic Chronic - Hazardous to the aquatic environment - Chronic
Ozone - Hazardous for the ozone layer
Lact. - Effects on or via lactation
NDS - Maximum permissible exposure level/concentration
NDSCH - Maximum short-term exposure level/concentration
NDSP - Maximum permissible ceiling exposure level/concentration
vPvB (Substance) very persistent and very bioaccumulating
PBT (Substance) persistent, bioaccumulating and toxic
PNEC – Predicted No Effect Concentration
DNEL – Derived No Effect Level
LD50 - Lethal dose 50; dose/amount of a substance which kills 50 % of the test population
LC50 - Lethal concentration; concentration of a substance which kills 50 % of the test population
LOEC - Lowest Observed Effect Concentration
NOEL No Observed Effect Level
NOEC - No Observed Effect Concentration
ECX - Effective concentration; concentration of a substance which produces X % effect response
ADR – Agreement Concerning the International Carriage of Dangerous Goods by Road
ADN – Agreement Concerning the International Carriage of Dangerous Goods by Inland Waters
RID – Regulations Concerning the International Carriage of Dangerous Goods by Rail
IMDG – International Maritime Dangerous Goods Code
ICAO/IATA – International Civil Aviation Organization/International Air Transport Association
UVCB - Substances of Unknown or Variable composition, Complex reaction products or Biological materials
Expl. - Explosive
Flam. Gas - Flammable gas
Flam. Aerosol - Flammable aerosol
Ox. Gas - Oxidising gas
Press. Gas - Gases under pressure
Flam. Liq. - Flammable liquid
Flam. Sol. - Flammable solid
Self-react. - Self-reactive substance or mixture
Pyr. Liq. - Pyrophoric liquid
Pyr. Sol. - Pyrophoric solid
Self-heat. - Self-heating substance or mixture
Water-react. - Substance or mixture which in contact with water emits flammable gas
Ox. Liq. - Oxidising liquid
Ox. Sol. - Oxidising solid
Org. Perox. - Organic peroxide
Met. Corr. - Substance or mixture corrosive to metals
Acute Tox. - Acute toxicity
Skin Corr. - Skin corrosion
Skin Irrit. - Skin irritation
Resp. Sens. - Respiratory sensitization
Skin Sens. - Skin sensitization
Muta. - Germ cell mutagenicity
Carc. - Carcinogenicity
Repr. - Reproductive toxicity, Category 1A
STOT SE - Specific target organ toxicity — single exposure

Key literature references and sources for data

This safety data sheet has been prepared based on the MSDS provided by the manufacturer or / and internet databases and current regulations.

Advice on any training appropriate for workers to ensure protection of human health and the environment

People involved in the handling of the product should be trained in the handling, safety and hygiene. The staff / drivers should be trained and obtain proper certification in accordance with the requirements of ADR.

List of relevant hazard statements and/or precautionary statements

H225 Highly flammable liquid and vapour

H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness

not applicable

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P243 Take action to prevent static discharges.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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.

P501a Dispose of contents/container to licensed waste disposal plant

Other Information

This safety data sheet is prepared to provide downstream users information about product.