SAFETY DATA SHEET

Industry Ethanol 99.5%

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

1.1. Product identifier

Trade name

Industry Ethanol 99.5%

Product no.

1458, 1517, 1536, 1537, 1545

Unique formula identifier (UFI)

MCG8-3T8U-V95M-PDH1

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

▼Relevant identified uses of the substance or mixture

Industrial purposes, Laboratory use
Restricted to professional users.

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Solveco AB
Tallbacksgatan 10
S-195 72 Rosersberg
Sweden
T: +46 (0)8 732 72 75
F: +46 (0)8 732 72 76
http://www.solveco.se

Contact person

Habib Hourani

E-mail

info@solveco.se

Revision

20/10/2023

SDS Version

4.0

Date of previous version

13/02/2023 (3.0)

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).
See section 4 “First aid measures”.

SECTION 2: Hazards identification

Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

2.1. Classification of the substance or mixture

Flam. Liq. 2; H225, Highly flammable liquid and vapour.
Eye Irrit. 2; H319, Causes serious eye irritation.

2.2. Label elements

Hazard pictogram(s)

Signal word

Danger

Hazard statement(s)

Highly flammable liquid and vapour. (H225)
Causes serious eye irritation. (H319)

Precautionary statement(s)

General

-

Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210)
Wear eye protection/protective gloves/protective clothing. (P280)

Response

If eye irritation persists: Get medical advice/attention. (P337+P313)
In case of fire: Use water mist/carbon dioxide/alcohol-resistant foam to extinguish. (P370+P378)

Storage

Store in a well-ventilated place. Keep cool. (P403+P235)

▼Disposal

Dispose of contents/container in accordance with local regulation (P501)

Hazardous substances

Ethanol

Additional labelling

UFI: MCG8-3T8U-V95M-PDH1

2.3. Other hazards

Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.
This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Ethanol	CAS No.: 64-17-5 EC No.: 200-578-6 UK-REACH: Index No.: 603-002-00-5	95-100%	Flam. Liq. 2, H225 Eye Irrit. 2, H319	
Methyl ethyl ketone	CAS No.: 78-93-3 EC No.: 201-159-0 UK-REACH: Index No.: 606-002-00-3	1-3%	EUH066 Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	[1]
Isopropanol	CAS No.: 67-63-0 EC No.: 200-661-7 UK-REACH: Index No.: 603-117-00-0	<1%	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	
Denatonium benzoate	CAS No.: 3734-33-6 EC No.: 223-095-2 UK-REACH: Index No.:	<0.0001%	Acute Tox. 4, H302 Acute Tox. 4, H332 Aquatic Chronic 3, H412	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

[1] European occupational exposure limit.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

▼Eye contact

If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

Ingestion

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink.
In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

Burns

Rinse with water until pain stops then continue to rinse for 30 minutes.

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

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.
Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

If eye irritation persists: Get medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.
Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. ▼Special hazards arising from the substance or mixture

Highly flammable liquid and vapour.
In use may form flammable/explosive vapour-air mixture.
Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.
If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:
Carbon oxides (CO / CO2)

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.
Ensure adequate ventilation, especially in confined areas.
Contaminated areas may be slippery.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

6.3. Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.
Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.
Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 “Disposal considerations” on handling of waste.
See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. ▼Precautions for safe handling

Ground and bond container and receiving equipment.
Use explosion-proof [electrical/lighting/ventilating] equipment.
Use non-sparking tools.
Take action to prevent static discharges.
Because of the danger of self-ignition, any waste from the product, spray mist and soiled rags etc. are to be kept in a fire-proof place in air-tight containers, alternatively the waste is to be burned.
Avoid contact during pregnancy and while nursing.
Smoking, drinking and consumption of food is not allowed in the work area.
See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers and store protected from moisture and light. Containers should be dated when opened and tested periodically for the presence of peroxides. Do not exceed storage time limits.
Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
Take action to prevent static discharges.
Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

Recommended storage material

Keep only in original packaging.

Storage temperature

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ethanol
Long term exposure limit (8 hours) (ppm): 1000
Long term exposure limit (8 hours) (mg/m³): 1920

Methyl ethyl ketone
Long term exposure limit (8 hours) (ppm): 200
Long term exposure limit (8 hours) (mg/m³): 600
Short term exposure limit (15 minutes) (ppm): 300
Short term exposure limit (15 minutes) (mg/m³): 899
Annotations:
BMVG = Biological Monitoring Guidance Value exists
Sk = Can be absorbed through the skin and lead to systemic toxicity.

Isopropanol
Long term exposure limit (8 hours) (ppm): 400
Long term exposure limit (8 hours) (mg/m³): 999
Short term exposure limit (15 minutes) (ppm): 500
Short term exposure limit (15 minutes) (mg/m³): 1250

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002.
EH40/2005 Workplace exposure limits (Fourth Edition 2020).

DNEL

Isopropanol

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Dermal	888 mg/kg kroppsvikt
Long term – Systemic effects	Inhalation	500 mg/m3

PNEC

Isopropanol

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		140,9 mg/L
Freshwater sediment		552 mg/kg
Intermittent release		140,9 mg/L
Marine water		140,9 mg/L
Marine water sediment		552 mg/kg
Sewage treatment plant		2251 mg/L
Soil		28 mg/kg

8.2. ▼Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

▼Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.
Apply standard precautions during use of the product. Avoid inhalation of vapours.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

No specific requirements.

Individual protection measures, such as personal protective equipment

Generally

Use only UKCA marked protective equipment.

Respiratory Equipment

Type	Class	Colour	Standards
A	-	Brown	EN14387

Skin protection

Recommended	Type/Category	Standards
Dedicated work clothing should be worn.	-	-

Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
Nitrile	-	-	EN374-2

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Butyl	-	-	EN374-2, EN374-3, EN388, EN421	

Eye protection

Type	Standards	
Wear safety glasses with side shields.	EN166	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state
Liquid

Colour
Colourless

Odour / Odour threshold
Alcohol odor (Odour treshold: 350 ppm)

pH
Testing not relevant or not possible due to the nature of the product.

Density (g/cm³)
0.79

Kinematic viscosity
Testing not relevant or not possible due to the nature of the product.

Particle characteristics
Does not apply to liquids.

Phase changes

Melting point/Freezing point (°C)
-114

Softening point/range (waxes and pastes) (°C)
Does not apply to liquids.

Boiling point (°C)
78

Vapour pressure
5.9 kPa (20 °C)

Relative vapour density
1,59

Decomposition temperature (°C)
Testing not relevant or not possible due to the nature of the product.

Data on fire and explosion hazards

Flash point (°C)
12

Flammability (°C)
425

Auto-ignition temperature (°C)
Testing not relevant or not possible due to the nature of the product.

Lower and upper explosion limit (% v/v)
3.3 - 19

Solubility

Solubility in water
Completely soluble

n-octanol/water coefficient
-0.32

Solubility in fat (g/L)
Testing not relevant or not possible due to the nature of the product.

9.2. Other information

Other physical and chemical parameters

No data available.

▼Oxidizing properties

Testing not relevant or not possible due to the nature of the product.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 “Handling and storage”.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Avoid static electricity.
Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

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

Acute toxicity

Product/substance	Ethanol
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	6200.00 mg/kg

Product/substance	Ethanol
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	>20000.00 mg/kg

Product/substance	Ethanol
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50 (4 hours)
Result:	124.70 mg/L

Product/substance	Isopropanol
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	4396.00 mg/kg

Product/substance	Isopropanol
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	12800.00 mg/kg

Product/substance	Isopropanol
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50 (4 hours)
Result:	46.5-72.0 mg/L

Skin corrosion/irritation

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

Serious eye damage/irritation
Causes serious eye irritation.

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

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

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

STOT-single exposure
Based on available data, the classification criteria are not met.

STOT-repeated exposure
Based on available data, the classification criteria are not met.

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

11.2. Information on other hazards

Long term effects
Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure. Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

▼Endocrine disrupting properties
This mixture/product does not contain any substances considered to have hormone-disrupting properties in relation to health.

▼Other information
Isopropanol has been classified by IARC as a group 3 carcinogen.

SECTION 12: Ecological information

12.1. Toxicity

Product/substance	Ethanol
Species:	Fish (Pimephales promelas)
Duration:	96 hours
Test:	LC50
Result:	13480.00 mg/L

Product/substance	Ethanol
Species:	Algae (Scenedesmus subspicatus)
Duration:	7 days
Test:	IC50
Result:	5000.00 mg/L

Product/substance	Ethanol
Species:	Daphnia (Daphnia magna)
Duration:	48 hours
Test:	EC50
Result:	5400.00 mg/L

Product/substance	Ethanol
Species:	Algae
Duration:	72 hours
Test:	IC50
Result:	>10.9 mg/L

Product/substance	Isopropanol

Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	4200.00 mg/L

Product/substance	Isopropanol
Species:	Algae (Scenedesmus subspicatus)
Duration:	96 hours
Test:	IC50
Result:	>1000.00 mg/L

Product/substance	Isopropanol
Species:	Daphnia
Duration:	48 hours
Test:	EC50
Result:	13299.00 mg/L

12.2. Persistence and degradability

Product/substance	Ethanol
Biodegradable:	Yes
Test method:	BOD5/COD
Result:	0.4 - 0.8

Product/substance	Isopropanol
Biodegradable:	Yes
Test method:	OECD 301 C
Result:	84 %

12.3. Bioaccumulative potential

Product/substance	Ethanol
Potential bioaccumulation:	No
LogPow:	No data available.
BCF:	< 10

Product/substance	Isopropanol
Potential bioaccumulation:	No
LogPow:	No data available.
BCF:	No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. ▼Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. ▼Waste treatment methods

Product is covered by the regulations on hazardous waste. (*)
To the extent the material has not been subject to regular tests of peroxide formation the waste shall be treated as explosive waste.
HP 3 - Flammable
HP 4 - Irritant (skin irritation and eye damage)
Dispose of contents/container to an approved waste disposal plant.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code

20 01 13* Solvents

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	1170	ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Transport hazard class: 3 Label: 3 Classification code: F1	II	No	Tunnel restriction code: 2 (D/E) See below for additional information.
IMDG	1170	ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Transport hazard class: 3 Label: 3 Classification code: F1	II	No	EmS: F-E S-D See below for additional information.
IATA	1170	ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Transport hazard class: 3 Label: 3 Classification code: F1	II	No	See below for additional information.

* Packing group
** Environmental hazards

Additional information

ADR / See Table A, section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.
IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.
IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.
This product is within scope of the regulations of transport of dangerous goods.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

Restrictions for application

Restricted to professional users.
People under the age of 18 shall not be exposed to this product.
Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education

No specific requirements.

SEVESO - Categories / dangerous substances

P5c - FLAMMABLE LIQUIDS, Qualifying quantity (lower-tier): 5.000 tonnes / (upper-tier): 50.000 tonnes

▼Regulation on drug precursors

Methyl ethyl ketone is included (Category 3)

Additional information

Not applicable.

▼Sources

The Health and Safety at Work etc. Act 1974 Regulations 2013.
Control of Major Accident Hazards (COMAH) Regulations 2015.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.
The Controlled Drugs (Drug Precursors) Regulations 2008.
Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.
Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

(REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

EUH066, Repeated exposure may cause skin dryness or cracking.
H225, Highly flammable liquid and vapour.
H302, Harmful if swallowed.
H319, Causes serious eye irritation.
H332, Harmful if inhaled.
H336, May cause drowsiness or dizziness.
H412, Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CE = Conformité Européenne (European conformity)
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
CSA = Chemical Safety Assessment
CSR = Chemical Safety Report
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EINECS = European Inventory of Existing Commercial chemical Substances
ES = Exposure Scenario
EUH statement = CLP-specific Hazard statement
EuPCS = European Product Categorisation System
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IARC = International Agency for Research on Cancer (IARC)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVBC = Unknown or variable composition, complex reaction products or of biological materials
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.
The classification of the mixture in regard to physical hazards has been based on experimental data.

▼The safety data sheet is validated by

Christian Andersson

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not

necessarily correct for use with other chemicals/products.
It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
Country-language: GB-en