

Informative translation. The binding safety data sheet is the Czech version "Líh pro technické účely", version 4.0. National data in this document (occupational exposure limits, regulations, emergency number) relate to the Czech Republic, the market on which the product is placed. In case of any discrepancy, the Czech version prevails.



SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 of the European Parliament and of the Council (REACH), as amended by Commission Regulation (EU) 2020/878

Líh pro technické účely — technical denatured alcohol



Current English edition
Scan the code, the permanent address always leads to the current English version:
mipahabry.cz/bl/80c690bba841/en

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

1.1. Product identifier

Product identifier	Líh pro technické účely (technical denatured alcohol)
Substance / mixture	mixture
UFI	1300-A0NG-A003-GCUR

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

Identified uses of the mixture: technical purposes, truck brake systems, degreasing and removal of dirt, thinning of spirit-based paints, burning in spirit stoves, foundry applications. The product is intended for industrial, professional and consumer use.

Main intended use: PC-PNT-7 Paint/varnish removers and related auxiliary products.

Uses advised against: must not be used for the production of foodstuffs.

Exposure scenarios are annexed to this safety data sheet.

1.3. Details of the supplier of the safety data sheet

Name or trade name	Miroslav Panský MIPA HABRY
Address	Říhova 364, Habry, 582 81, Czech Republic
Company ID (IČO)	11002484
VAT ID	CZ6105280027
Telephone	+420 602 638 894
E-mail	miroslav.pansky@mipahabry.cz
E-mail of the competent person responsible for the safety data sheet	Miroslav Panský, miroslav.pansky@mipahabry.cz

1.4. Emergency telephone number

Toxicological Information Centre (national poison centre of the Czech Republic), Klinika pracovního lékařství VFN a 1. LF UK, Na Bojišti 1, 120 00 Prague 2; tel.: +420 224 919 293, +420 224 915 402 (24 hours a day).

Outside the Czech Republic, contact your national poison centre or the single European emergency number 112.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification of the mixture according to Regulation (EC) No 1272/2008: the mixture is classified as hazardous.

Flam. Liq. 2, H225 · Eye Irrit. 2, H319

The full text of all classifications and H statements is given in Section 16.

Most important adverse physicochemical effects: highly flammable liquid and vapour.

Most important adverse effects on human health and the environment: causes serious eye irritation.

2.2. Label elements

Hazard pictograms



GHS02 (flame) · GHS07 (exclamation mark)

Signal word

Danger

Hazardous substances

ethanol

Hazard statements:

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

Precautionary statements:

- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 Keep container tightly closed.
- P280 Wear protective gloves and eye protection.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P501 Dispose of contents/container at a hazardous waste collection point.

Child-resistant fastenings and tactile warnings: the packaging must bear a tactile warning of danger (Annex II to the CLP Regulation, Part 3, point 3.2).

The UFI code must be stated on the label of consumer packaging: 1300-A0NG-A003-GCUR (Annex VIII to the CLP Regulation).

2.3. Other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria laid down in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. The mixture does not contain substances fulfilling the PBT or vPvB criteria in accordance with Annex XIII to Regulation (EC) No 1907/2006 (REACH), as amended.

Dries and degreases the skin; small cracks develop which allow infection to enter. After ingestion it is rapidly absorbed through the stomach lining into the blood. High vapour concentrations irritate the eyes and the mucous membranes of the respiratory tract and have a narcotic effect.

Flammable liquid of hazard class I according to Czech standard ČSN 65 0201. Evaporation releases hydrocarbon emissions into the air. The mixture is a highly flammable liquid, evaporates quickly, and its vapours are ignitable and form explosive mixtures with air that are heavier than air. Vapours stay close to the ground and spread quickly over long distances. It is fully miscible with water; at high concentrations, explosive vapour–air mixtures may form above the water surface. Vapours can be ignited by hot surfaces, sparks or open flames.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterisation: mixture of the substances listed below.

Identification numbers	Substance name	Content in % by weight	Classification according to Regulation (EC) No 1272/2008	SCL / ATE	Note
Index: 603-002-00-5 CAS: 64-17-5 EC: 200-578-6 Reg. No: 01-2119457610-43-XXXX	ethanol	96	Flam. Liq. 2, H225 Eye Irrit. 2, H319	SCL: Eye Irrit. 2; H319: C ≥ 50 %	1
Index: 606-002-00-3 CAS: 78-93-3 EC: 201-159-0 Reg. No: 01-2119457290-43-XXXX	butanone	1–3	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	ATE oral 2193 mg/kg; inhalation 34.5 mg/l	1

Identification numbers	Substance name	Content in % by weight	Classification according to Regulation (EC) No 1272/2008	SCL / ATE	Note
Index: 603-117-00-0 CAS: 67-63-0 EC: 200-661-7 Reg. No: 01-2119457558-25-XXXX	propan-2-ol	1–3	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	ATE oral 5840 mg/kg; dermal 13 900 mg/kg	1

Note 1: Substance for which Union workplace exposure limits are established. The full registration number will be provided to enforcement authorities on request within 7 days (point 3.2.4 of Annex II to REACH). The full text of all classifications and H statements is given in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of health problems, or in case of doubt, seek medical attention. In life-threatening conditions: if the casualty is not breathing, start artificial respiration immediately (not direct mouth-to-mouth); cardiac arrest — start chest compressions immediately; unconsciousness — place the casualty in the recovery position.

After inhalation: Move the casualty to fresh air, keep them warm and at rest, do not let them walk. Seek medical attention if problems persist.

After skin contact: Wash the affected skin thoroughly with water. After thorough rinsing, treat the skin with a repair cream. If pain or redness persists, seek medical attention.

After eye contact: Rinse the eyes as quickly as possible with clean water and continue rinsing for at least 15 minutes — hold the eyelids open and rinse with a gentle stream from the inner to the outer corner of the eye. Remove contact lenses if possible. Medical attention is required.

After ingestion: Do not induce vomiting. Rinse the mouth with water. If the casualty is conscious and not convulsing, give about 0.5 l of lukewarm water to drink. Never give anything by mouth to an unconscious person. Call a physician.

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

After inhalation: at high concentrations irritation of the respiratory tract, drowsiness, narcotic effects. After skin contact: degreases the skin; small cracks develop which allow infection to enter. After eye contact: irritation at high concentrations; permanent damage cannot be excluded. After ingestion: intoxication, headache, sensation of heat and pressure in the eyes, fatigue, drowsiness, vomiting, unconsciousness.

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

Symptomatic treatment. Contact a physician specialised in toxicology immediately if a large quantity of the mixture has been swallowed or inhaled.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: water spray, alcohol-resistant foam, carbon dioxide, dry extinguishing powder. Unsuitable extinguishing media: direct water jet.

5.2. Special hazards arising from the substance or mixture

Highly flammable liquid and vapour. Carbon oxides are released on burning. Vapours are heavier than air — they accumulate near the ground and in enclosed spaces and may form an explosive mixture with air. Vapours may travel considerable distances and cause flash-back. Do not flush into sewers — risk of fire or explosion. Tanks containing the substance may explode when exposed to heat.

5.3. Advice for firefighters

Protective clothing according to EN 469, firefighter gloves according to EN 659+A1, firefighter boots according to EN 15090, helmet according to EN 16471 / EN 16473, self-contained breathing apparatus according to EN 137. Prevent used extinguishing media from entering sewers and water sources. Use water spray to cool tanks and containers exposed to fire or to disperse vapours.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel: Close off the accident site and remove all persons not involved in rescue work. Prevent access to the endangered area. Remove all possible sources of ignition. Stop traffic, switch off vehicle engines. No smoking and no handling of open flames. Avoid contact with the substance, do not inhale vapours. Stay upwind and keep away from low-lying areas where vapours may accumulate and ignite.

6.1.2. For emergency responders: Use all recommended personal protective equipment according to Section 8. Use explosion-proof lighting and non-sparking tools. Stop the leak if this can be done without risk. For escape from a contaminated area, use a mask with a type A filter against organic vapours. In the event of major accidents, evacuate people from the endangered area.

6.2. Environmental precautions

Prevent further leakage of the substance. Contain the area. Prevent the substance from entering soil, watercourses or sewers. If the substance enters a watercourse or reservoir, inform the water consumers and stop the operation and use of the water.

6.3. Methods and material for containment and cleaning up

Small spills: allow to evaporate if safe, or absorb with non-combustible inert material and place it in waste collection containers. Large spills: ensure sufficient ventilation, pump the substance off safely, absorb residues with non-combustible inert material and take away in closed containers for disposal according to Section 13.

6.4. Reference to other sections

Also follow the provisions of Sections 8 and 13 of this safety data sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Observe all fire prevention measures (no smoking, no work with open flames, removal of all possible ignition sources). Earth the container and the receiving equipment. Use electrical, ventilation and lighting equipment rated for explosive atmospheres. Use only non-sparking tools. Take precautionary measures against static discharge. Keep in tightly closed containers in a cool, dry and well-ventilated place. Use the recommended personal protective equipment and avoid contact with skin, eyes and clothing. Avoid inhaling vapours. Wash hands and face thoroughly with soap and water after work. Do not eat, drink or smoke when using this product. Keep containers in spill containment trays. In the event of a release, proceed according to Section 6. For further protective measures, see the relevant exposure scenario for the intended use.

7.2. Conditions for safe storage, including any incompatibilities

Warehouses must meet the fire safety requirements for buildings and the electrical equipment must comply with the applicable regulations. Store in a cool, dry and well-ventilated place with effective extraction, away from direct sunlight, heat sources and all sources of ignition. Store in tightly closed containers; storage tanks must be earthed. Do not store together with the materials listed in Section 10.5. Keep away from food, drink and animal feed. Suitable packaging materials: stainless steel, titanium, cast bronze, iron alloys, carbon steel, polypropylene, neoprene, nylon, Viton, ceramics, carbon, glass. Unsuitable materials: natural rubber, PVC, methyl methacrylate plastics, polyamides, zinc, brass, aluminium under certain conditions.

Contents	Type of packaging	Packaging material
500 ml / 1 l	bottle	PE
5 l / 10 l	canister	PE
60 l	canister	PE
190 l	drum	steel sheet
1000 l	IBC (intermediate bulk container)	—

7.3. Specific end use(s)

The specific use is stated in the instructions for use on the product label or in the product documentation. For consumer use, follow the conditions given in the Annex: work in a well-ventilated area, limit the quantity used and the duration of exposure, protect your eyes when refilling fuel, and open windows when applying paints.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Czech Republic — national occupational exposure limits according to Government Decree No 361/2007 Coll., as amended (Annex 2). PEL = permissible exposure limit (8-hour time-weighted average); NPK-P = ceiling concentration in workplace air:

Substance (component)	PEL	NPK-P	Conversion to ppm (coefficient)	Note
ethanol (CAS 64-17-5)	1000 mg/m ³	3000 mg/m ³	522 / 1566 ppm (0.522)	—
butanone (CAS 78-93-3)	600 mg/m ³	900 mg/m ³	200 / 300 ppm (0.334)	irritates mucous membranes (eyes, respiratory tract) and skin
propan-2-ol (CAS 67-63-0)	500 mg/m ³	1000 mg/m ³	200 / 400 ppm (0.400)	irritates mucous membranes (eyes, respiratory tract) and skin

European Union — Commission Directive 2000/39/EC: butanone OEL 8 h: 600 mg/m³ (200 ppm); OEL 15 min: 900 mg/m³ (300 ppm).

DNEL

Substance	Group	Exposure route	Value	Effect
ethanol	Workers	Inhalation	380 mg/m ³ (long-term, systemic) · 1900 mg/m ³ (acute, local) · 950 mg/m ³ (acute, systemic)	chronic and acute
ethanol	Workers	Dermal	267 mg/kg bw/day	chronic systemic
ethanol	Consumers	Inhalation	114 mg/m ³ (long-term, systemic) · 950 mg/m ³ (acute, local)	chronic and acute
ethanol	Consumers	Dermal / oral	206 mg/kg bw/day / 87 mg/kg bw/day	chronic systemic
butanone	Workers	Inhalation	600 mg/m ³ (long-term) · 900 mg/m ³ (short-term)	systemic
butanone	Workers	Dermal	1161 mg/kg bw/day	chronic systemic
butanone	Consumers	Inhalation	106 mg/m ³ (long-term) · 450 mg/m ³ (short-term)	systemic
butanone	Consumers	Dermal / oral	412 mg/kg bw/day / 31 mg/kg bw/day	chronic systemic
propan-2-ol	Workers	Inhalation	500 mg/m ³ (long-term) · 1000 mg/m ³ (short-term)	systemic
propan-2-ol	Workers	Dermal	888 mg/kg bw/day	chronic systemic
propan-2-ol	Consumers	Inhalation	89 mg/m ³ (long-term) · 178 mg/m ³ (short-term)	systemic
propan-2-ol	Consumers	Dermal / oral	319 mg/kg bw/day / 26 mg/kg bw/day	chronic systemic

PNEC

Substance	Freshwater	Marine water	Intermittent release	STP	Sediment (fresh/marine)	Soil	Food chain
ethanol	0.96 mg/l	0.79 mg/l	2.75 mg/l	580 mg/l	3.6 / 2.9 mg/kg dw	0.63 mg/kg dw	380 mg/kg
butanone	55.8 mg/l	55.8 mg/l	—	709 mg/l	284.7 / 284.7 mg/kg dw	22.5 mg/kg dw	1000 mg/kg
propan-2-ol	140.9 mg/l	140.9 mg/l	140.9 mg/l	2251 mg/l	552 / 552 mg/kg dw	28 mg/kg dw	160 mg/kg

8.2. Exposure controls

Ensure sufficient ventilation; local exhaust ventilation is recommended. Provide a safety shower and eye-wash facility at the workplace. The monitoring procedure for airborne concentrations and the specification of protective equipment are determined by the person responsible for occupational safety; under Czech law the employer is obliged to measure and check the concentrations of substances in workplace air and to categorise work accordingly.

Eye/face protection

Safety goggles (EN 166).

Hand protection

Protective gloves (EN ISO 374-1) — butyl or nitrile rubber; breakthrough time > 480 min. Follow the glove manufacturer's instructions and replace gloves regularly.

Other skin protection

Suitable antistatic workwear and closed antistatic footwear.

Respiratory protection

Sufficient ventilation. In case of insufficient ventilation or when handling open equipment, a half mask with an AX filter against organic vapours.

Thermal hazards

None under normal handling. The mixture is highly flammable — see Sections 2 and 9.

Environmental exposure controls: observe the usual environmental protection measures, see point 6.2. Handle on sealed surfaces and prevent entry into soil, sewers and water. Observe emission limits — Czech Act No 201/2012 Coll. on air protection and Act No 254/2001 Coll. on water, as amended.

Personal protective equipment must comply with Regulation (EU) 2016/425 of the European Parliament and of the Council; its provision at Czech workplaces is governed by Government Decree No 390/2021 Coll. and Council Directive 89/656/EEC.

Exposure scenarios are annexed to this safety data sheet.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid (at 20 °C, 1013 hPa)
Colour	colourless
Odour	characteristic alcoholic
Melting point / freezing point	−114 °C (ethanol)
Boiling point or initial boiling point and boiling range	78.3 °C (ethanol)
Flammability	flammable liquid; hazard class I according to Czech standard ČSN 65 0201
Lower and upper explosion limit	3.3 % vol. – 19 % vol. (ethanol)
Flash point	14 °C (ethanol)
Auto-ignition temperature	363–425 °C (ethanol)
Decomposition temperature	no data available
pH	not applicable (non-aqueous liquid)
Kinematic viscosity	1.4–1.6 mm ² /s at 20 °C (converted from dynamic viscosity 1.17–1.26 mPa·s and density 0.81 g/cm ³)
Solubility in water	miscible in all proportions
Partition coefficient n-octanol/water (log value)	−0.31 (ethanol)
Vapour pressure	5.85 kPa at 20 °C (ethanol)
Density	0.81 g/cm ³ at 20 °C
Relative vapour density	1.6 (air = 1) (ethanol)

9.2. Other information

The product is highly flammable. Maximum VOC content of the product in ready-to-use condition: 820 g/l. Fire point 29 °C (ethanol). Maximum experimental safe gap: 0.875 mm (ethanol). Net calorific value: 26.9 MJ/kg (ethanol). Explosion group IIB, temperature class T2 (ethanol). Critical temperature 243 °C (ethanol). Flame temperature: 2086 °C (ethanol).

SECTION 10: Stability and reactivity

10.1. Reactivity: No particular risks of reaction with other substances are known under normal conditions.

10.2. Chemical stability: Chemically stable under normal conditions of use and storage (20 °C, 101.3 kPa).

10.3. Possibility of hazardous reactions: No hazardous reactions are known; hazardous polymerisation does not occur.

10.4. Conditions to avoid: high temperatures, ignition sources, concentrations within the explosion limits; solvent vapours are heavier than air and accumulate near the floor.

10.5. Incompatible materials: strong mineral acids, oxidising agents, substances supporting combustion, aluminium at elevated temperatures.

10.6. Hazardous decomposition products: none under normal use; carbon monoxide and carbon dioxide in a fire; hydrogen is released on reaction with alkali metals.

SECTION 11: Toxicological information

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

No toxicological data are available for the mixture itself; the data apply to the components.

Acute toxicity — based on available data, the classification criteria are not met.

Substance	Exposure route	Parameter	Value	Species	Source
ethanol	Oral	LD ₅₀	7060–10 470 mg/kg (OECD 401)	rat	registration dossier
ethanol	Dermal	LD ₅₀	15 800 mg/kg	rabbit	registration dossier
ethanol	Inhalation (4 h)	LC ₅₀	50 mg/l (vapours); 116.9–133.8 mg/l (OECD 403)	rat	registration dossier
butanone	Oral	LD ₅₀	2193 mg/kg	rat	registration dossier
butanone	Dermal	LD ₅₀	8000 mg/kg	rabbit	registration dossier
butanone	Inhalation (4 h)	LC ₅₀	34.5 mg/l	rat	registration dossier
propan-2-ol	Oral	LD ₅₀	5840 mg/kg	rat	registration dossier
propan-2-ol	Dermal	LD ₅₀	13 900 mg/kg	rabbit	registration dossier

Skin corrosion/irritation: the classification criteria are not met.

Serious eye damage/eye irritation: causes serious eye irritation.

Respiratory or skin sensitisation: the criteria are not met.

Germ cell mutagenicity: the criteria are not met.

Carcinogenicity: the criteria are not met.

Reproductive toxicity: the criteria are not met; ethanol: impaired fertility NOAEL 13 800 mg/kg bw/day (oral), NOAEC 30 400 mg/m³ (inhalation); developmental toxicity NOAEL 5200 mg/kg bw/day (oral), NOAEC 39 000 mg/m³ (inhalation).

STOT — single exposure: the criteria are not met.

STOT — repeated exposure: the criteria are not met; ethanol NOAEL 1730 mg/kg bw/day (liver).

Aspiration hazard: the criteria are not met.

11.2. Information on other hazards

No endocrine disrupting properties are known.

SECTION 12: Ecological information

12.1. Toxicity

Substance	Parameter	Value	Exposure time	Species
ethanol	LC ₅₀	11 200 mg/l	96 h	fish (Pimephales promelas)
ethanol	EC ₅₀	5012 mg/l (freshwater) / 857 mg/l (marine water)	48 h	crustaceans (Ceriodaphnia dubia / Artemia salina)
ethanol	IC ₅₀	275 mg/l (freshwater)	72 h	algae (Chlorella vulgaris)
ethanol	IC ₅₀	1970 mg/l (marine water)	72 h	algae
butanone	LC ₅₀	2973 mg/l	96 h	fish
butanone	EC ₅₀	308 mg/l	48 h	daphnia
butanone	IC ₅₀	1220 mg/l	72 h	algae
propan-2-ol	LC ₅₀	9640 mg/l	96 h	fish
propan-2-ol	EC ₅₀	> 10 000 mg/l	48 h	daphnia (Daphnia magna)
propan-2-ol	IC ₅₀	1800 mg/l	72 h	algae

12.2. Persistence and degradability: Ethanol: readily biodegradable in the freshwater environment (60 % in 5 days) and in marine water (75 % in 20 days).

12.3. Bioaccumulative potential: low; log K_{ow} < 3; BCF 3.2.

12.4. Mobility in soil: no data available.

12.5. Results of PBT and vPvB assessment: the product does not contain substances fulfilling the PBT/vPvB criteria of Annex XIII to REACH.

12.6. Endocrine disrupting properties: the mixture does not contain such substances.

12.7. Other adverse effects: The mixture does not contain substances listed in Regulation (EU) 2024/590 on substances that deplete the ozone layer.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Place unused product and contaminated packaging in labelled waste collection containers and hand them over for disposal to an authorised person. Recycle the product if possible, or incinerate it in an approved facility. Empty packaging may contain product residues — do not cut, pierce or weld; do not dispose of contaminated packaging with municipal waste.

Hazardous properties of the waste: HP3 "flammable", HP4 "irritant — skin irritation and eye damage" (Regulation (EU) No 1357/2014).

Waste legislation (Czech Republic): Act No 541/2020 Coll. on waste, as amended; Act No 477/2001 Coll. on packaging, as amended; Decree No 8/2021 Coll. (Waste Catalogue); Decree No 273/2021 Coll. on details of waste management; Commission Decision 2014/955/EU (list of waste); Directive 2008/98/EC.

Waste code	Name
07 07 04*	Other organic solvents, washing liquids and mother liquors
15 01 10*	Packaging containing residues of or contaminated by hazardous substances
15 02 02*	Absorbents, filter materials, wiping cloths and protective clothing contaminated by hazardous substances

(*) hazardous waste

SECTION 14: Transport information

14.1. UN number or ID number

UN 1170

14.2. UN proper shipping name	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
14.3. Transport hazard class(es)	3 — Flammable liquids
14.4. Packing group	II — substances presenting medium danger
14.5. Environmental hazards	No
14.6. Special precautions for user	No special precautions beyond Sections 4 to 8 of this safety data sheet.
14.7. Maritime transport in bulk according to IMO instruments	Not applicable — the mixture is transported in packages only.

Supplementary information (ADR): hazard identification number (Kemler) 33; classification code F1; danger label 3; **tunnel restriction code D/E**; limited quantity (LQ) 1 l — the 0.5 l and 1 l packages qualify for the limited quantity regime under Chapter 3.4 of ADR. Air transport ICAO/IATA: packing instruction passenger 353, cargo 364. Maritime transport IMDG: EmS F-E, S-D; MFAG 305.

SECTION 15: Regulatory information

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

Regulation (EC) No 1907/2006 (REACH), as amended, including Commission Regulation (EU) 2020/878. Regulation (EC) No 1272/2008 (CLP), as amended. Czech Republic: Act No 350/2011 Coll. (Chemical Act); Act No 258/2000 Coll. on the protection of public health; Government Decree No 361/2007 Coll., as amended; Act No 541/2020 Coll. on waste; Act No 201/2012 Coll. on air protection; Decree No 432/2003 Coll., as amended.

Restrictions under Annex XVII to REACH: entry 3 (liquid substances hazardous to health), entry 40 (flammable substances in aerosol dispensers) and entry 75 (substances in tattoo inks — not applicable to the identified uses). The mixture falls within the scope of Directive 2012/18/EU (Seveso III) — flammable liquids of category P5a/P5b/P5c depending on the quantity stored. Regulation (EU) 2019/1148 on explosives precursors: the components of the mixture are not listed in Annex I or II. SVHC candidate list (Article 59 of REACH): none. Substances subject to authorisation (Annex XIV to REACH): none.

15.2. Chemical safety assessment

A chemical safety assessment has been carried out for ethanol (by the registrant). For consumer uses, the conditions of safe use are taken from the generic exposure scenarios of the ethanol registrants (see Annex).

SECTION 16: Other information

List of hazard statements used in the safety data sheet: H225 Highly flammable liquid and vapour. · H319 Causes serious eye irritation. · H336 May cause drowsiness or dizziness. · EUH066 Repeated exposure may cause skin dryness or cracking.

List of precautionary statements used in the safety data sheet: P101, P102, P210, P233, P280, P305+P351+P338, P501 (full wording in Section 2.2). Compared with version 3.0, P337+P313, P370+P378 and P403+P235 have been removed from the label — the information remains in Sections 4, 5 and 7 of the safety data sheet.

Key to abbreviations and acronyms used in the safety data sheet: ADR — Agreement concerning the International Carriage of Dangerous Goods by Road · ATE — acute toxicity estimate · BCF — bioconcentration factor · CAS — Chemical Abstracts Service registry number · CLP — Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures · ČSN — Czech technical standard · DNEL — derived no-effect level · dw — dry weight · EC₅₀ — effective concentration for 50 % of the test organisms · EmS — emergency schedule for ships carrying dangerous goods · EN — European standard · ERC — environmental release category · EC (number) — substance identification number in the EINECS/ELINCS/NLP inventories · EUH066 — supplemental hazard statement under the CLP Regulation · Eye Irrit. — eye irritation · Flam. Liq. — flammable liquid · GHS — Globally Harmonized System of Classification and Labelling of Chemicals · HP — hazardous property of waste · IATA — International Air Transport Association · IBC — intermediate bulk container · IC₅₀ — concentration causing 50 % inhibition of the monitored parameter · ICAO — International Civil Aviation Organization · IMDG — International Maritime Dangerous Goods Code · LC₅₀ — lethal concentration for 50 % of the test organisms · LD₅₀ — lethal dose for 50 % of the test organisms · LQ — limited quantity · MFAG — Medical First Aid Guide for accidents involving dangerous goods · Msafe — maximum safe amount per day · NOAEC / NOAEL — no observed adverse effect concentration / level · NPK-P — ceiling concentration in workplace air (Czech Republic) · OECD — Organisation for Economic Co-operation and Development (test methods) · OEL — occupational exposure limit (EU) · PBT — persistent, bioaccumulative and toxic substance · PC — chemical product category · PEL — permissible exposure limit (Czech Republic, 8-hour TWA) · PNEC — predicted no-effect concentration · ppm — parts per million by volume · PROC — process category · REACH — Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorisation and Restriction of Chemicals · SCL — specific concentration limit · STOT SE — specific target organ toxicity, single exposure · STP — sewage treatment plant · SU — sector of use category · bw — body weight · UFI — unique formula identifier · UN — United Nations transport identification number · VOC — volatile organic compounds · vPvB — very persistent and very bioaccumulative substance.

Training advice: Familiarise workers with the recommended manner of use, the mandatory protective equipment, first aid and the prohibited manipulations of the product.

Recommended restrictions on use: Do not use for the production of foodstuffs. Follow the recommendations in this safety data sheet.

Information on data sources: Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP), as amended. Czech Act No 350/2011 Coll. Data from the manufacturer of the substance/mixture and from the ethanol registration dossier. Generic exposure scenarios of the ethanol registrants. Czech Government Decrees No 361/2007 Coll. and No 390/2021 Coll.

Changes made: Version 4.0 replaces version 3.0 of 17.05.2022 — a complete revision based on the current safety data sheet of the manufacturer, the ethanol registration dossier and a check of the validity of legal references. Changes in Sections 1.3, 2.2, 3.2, 4.1, 5.3, 6.1, 7.2, 7.3, 8.1, 8.2, 9.1, 11.1, 12.1, 12.7, 13, 14, 15.1, 16 and in the Annex.

Version	Date	Scope of changes
3.0	17.05.2022	revision according to Regulation (EU) 2020/878
4.0	17.08.2026	complete revision — Sections 1.3, 2.2, 3.2, 4.1, 5.3, 6.1, 7.2, 7.3, 8.1, 8.2, 9.1, 11.1, 12.1, 12.7, 13, 14, 15.1, 16, Annex

Classification procedure (Article 9 of the CLP Regulation): physical hazards (Flam. Liq. 2) based on test data for the components; health hazards (Eye Irrit. 2) by the calculation method from the classification of the components according to Regulation (EC) No 1272/2008.

Declaration: This safety data sheet contains data intended to ensure safety and health protection at work and protection of the environment. The data provided correspond to the current state of knowledge and experience and comply with the legal regulations in force. They cannot be considered a guarantee of the suitability and usability of the product for a specific application. This safety data sheet is a qualified professional document; any modifications without the consent of the competent person are prohibited.

Language versions: This document is an informative English translation of the Czech safety data sheet “Líh pro technické účely”, version 4.0 of 17.08.2026, provided for the convenience of users. The Czech version is the binding one and is permanently available at mipahabry.cz/bl/80c690bba841; in case of any discrepancy, the Czech version prevails.

ANNEX: Exposure scenarios

The exposure scenarios for ethanol (registration 01-2119457610-43) apply to this safety data sheet. The full texts of scenarios ES2, ES3, ES4, ES6b and ES7 are taken from the manufacturer's safety data sheet; an overview and the key conditions are given below. The conditions for consumer uses are based on the generic exposure scenarios of the ethanol registrants.

Overview of scenarios for professional and industrial uses

Scenario	Name	Descriptors	Key conditions	Msafe
ES2	Industrial distribution of ethanol	SU3/8/9 · PROC8a/8b/9 · ERC2	Outdoor or ventilated areas (5–15 air changes per hour), gloves EN 374, eye protection where splashing may occur; exposure > 4 h/day, 240 days/year.	337 t/day
ES3	Industrial formulation and (re)packing of ethanol and its mixtures	SU3/10 · PROC1–9, 15 · ERC2	Covers repacking into smaller containers; good level of ventilation, enclosed material transfer, gloves EN 374.	146 t/day
ES4	Industrial use of ethanol in non-spray applications	SU3 · PROC10/13 · ERC4	Application by roller, brush or dipping; ventilation 5–15 air changes per hour; gloves EN 374; reduction of air emissions by 90 %.	7200 kg/day
ES6b	Professional use of ethanol as a fuel source	SU22 · PROC16 · ERC9a/9b	Limited exposure to the unburnt form; no specific PPE; do not pour into sewers.	1770 kg/day
ES7	Professional use of ethanol in non-spray applications	SU22 · PROC10/13/14/19 · ERC8a/8d	Thinning of paints, cleaning; good level of ventilation; gloves EN 374 for prolonged contact; eye protection.	4.4 kg/day (professional)

Conditions of safe use for consumers (generic scenarios of the registrants)

Consumer use	Descriptors	Conditions of safe use
Household fuel (spirit stoves, heaters)	PC13 · ERC8a/8d or ERC9a/9b	Concentration up to 100 %; refilling up to 1 l per use, typically 1 day a week; exposure during refilling up to 5 minutes; indoors and outdoors; use suitable eye protection when refilling. Never refill a hot or burning appliance.
Thinning and application of spirit-based paints	PC9a · ERC8a/8d	Ethanol concentration in the processed mixture up to 15 %; 50–250 g per use; application 20–60 minutes, 1–5 days a year; room of at least 20 m ³ ; open windows during application (natural ventilation).
Household cleaning	PC35 · ERC8a/8d	Concentration up to 25 %; up to 250 g per use; exposure up to 60 minutes a day; normal household ventilation; open windows when spraying.
Minor uses up to 50 g per day	PC1/3/24/31 etc. · ERC8a/8d	Up to 50 g per use; exposure up to 4 hours a day; room of at least 20 m ³ ; avoid inhaling vapours and contact with skin and eyes.

Short-term handling of the undiluted product (dosing, decanting) is covered by the minor-uses scenario.

Version 4.0 — 17.08.2026 · Miroslav Panský MIPA HABRY, Říhova 364, 582 81 Habry, Czech Republic · miroslav.pansky@mipahabry.cz · Current English edition of the safety data sheet: permanent address mipahabry.cz/bl/80c690bba841/en (QR code on the first page) · Binding Czech version: mipahabry.cz/bl/80c690bba841.