PHAGA INDUSTRIES	**Ethanol 70 % MSDS'** Solvent 1510	Phaga / IMS / Q / F /01 Rev: - 01 Issue: - 01 Issue Date: - 20 / 08/2022

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

1.1 Product Identifier

Trade name	Ethanol 70 %
Synonyms	Ethyl alcohol
CAS-No.	64-17-5
EC-No.	200-578-6

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

Relevant Identified uses	General Solvent (Denature)

1.3 Manufacturer or supplier's details

Company	Phaga for industries
Address	
Telephone	
E-mail address	

1.4 Emergency telephone

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flammable liquids	Category 2, H225
Serious Eye Damage/Irritation -	Category 2A H319
Health hazards	Not Classified
Environmental hazards	Not Classified

2.2 Label elements

Signal word	Danger

Pictogram

GHS02, GHS07

Hazard statement(s)

H225	Highly flammable liquid and vapor.
H319	Causes serious eye irritation

Precautionary statements

P101	If Medical advice is needed, have product container or label and hand
P102	Keep out from children
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242	Use non-sparking tools.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303 + P361 + P 353	if on skin (or hair): remove/Take off immediately all contaminated clothing. skin with water / shower
P403 + P235	Store in a well-ventilated place. Keep cool

2.3 Other hazards

None

SECTION 3: composition / information on ingredients

Substance	Ethanol
Molecular Formula	C_2H_6O
Molar mass	46,07
CAS-No.	64-17-5
EC-No.	200-578-6

SECTION 4: first – Aid Measures

Eyes: Rinse opened eyes for several minutes under running water. Consult a physician.

Skin: Rinse skin with water/shower. Get medical aid. Wash clothing before reuse. Flush skin with plenty of soap and water.

Ingestion: Rinse mouth. Call a doctor if you feel unwell

Inhalation: Provide fresh air. In all Cases of doubt, or when symptoms persist, seek medical advice.

Most important symptoms and effects, both acute and delayed

Irritation, Nausea, Vomiting, Abdominal pain, Breathing difficulties, Vertigo, Drowsiness, Narcosis, Loss of righting reflex, and ataxia

Indication of any immediate medical attention and special treatment needed

- None

SECTION 5: Firefighting Measures

Extinguishing Media: BC -Powder, carbon dioxide (CO_2), Dry Powder , water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture Combustible.

Carbon oxides Combustible. Pay attention to flashback. Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapors possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

Unsuitable extinguishing Media Water spray jet

Advice for fire fighters Further information Cool containers / tanks with water spray

SECTION 6: - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes and clothes. Do not breathe vapor/spray. Avoidance of ignition sources.

Environmental Do not allow to enter into surface water of drains. Do not allow to enter into soil/subsoil.

6.2 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains, Collect, bind, and pump off spills

Advice on how to clean up a spill

Contain and collect spillage with non-combustible absorbent material, (eg sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/ national regulations

6.3 Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

SECTION 7: - Handling and Storage

7.1 Precautions for safe handling

Keep away from sources of ignition

No smoking.

Take precautionary measures against static discharges.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance. Use only explosion-proof equipment

7.2 Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a cool, well-ventilated place, Keep away from heat and sources of ignition

Storage class (TRGS 510): 3: Flammable liquids

7.3 Storage incompatibility

- Avoid strong bases.
- Avoid oxidizing agents, acids, acid chlorides, acid anhydrides, chloroformates.

SECTION 8: - Exposure Controls and Personal Protection

8.1 Control parameters

Derived No Effect Level (DNEL)

Application Area	Health Effects	Exposure	Value
Worker	Acute Local effects	Inhalation	1900 mg/m³
Worker	Long-term Systemic effects	Inhalation	950 mg/m³
Worker	Long-term Systemic effects	Skin contact	343 mg/kg Body weight
Consumer	Acute Local effects	Inhalation	950 mg/m³
Consumer	Long-term Systemic effects	Ingestion	87 mg/kg Body weight
Consumer	Long-term Systemic effects	Inhalation	114 mg/m³
Consumer	Long-term Systemic effects	Skin contact	206 mg/kg Body weight

Predicted No Effect Concentration (PNEC)

Compartment	Value
Aquatic intermittent release	2.75 mg/l
Fresh water	0.96 mg/l

Fresh water sediment 3.6 mg/kg

Marine water 0.79 mg/l

Oral 720 mg/kg

Sewage treatment plant 580 mg/l

Soil 0.63 mg/kg

8.2 Exposure controls

. Appropriate engineering controls

General ventilation.

.Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

.Hand protection

Protective gloves

IIR: isobutene-isoprene (butyl) rubber ≥ 0,5 mm >480 minutes (permeation: level 6)

FKM: fluoro-elastomer 0,4 mm >480 minutes (permeation: level 6)

Wear suitable gloves.

Chemical protection gloves are suitable, which are tested according to EN 374.

Check leak-tightness/impermeability prior to use.

In the case of wanting to use the gloves again, clean them before taking off and air them well.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

.Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Type: A-P2 (combined filters against particles and organic gases and vapours, colour code: Brown/White).

.Environmental exposure controls

Use appropriate container to avoid environmental contamination.

Keep away from drains, surface and ground water.

SECTION 9: - Physical and chemical Properties

1. Information on basic physical and chemical properties

Physical state	liquid
Odor	Alcohol-like
pH	7
Melting point/range	- 115 ^{o}C
Boiling point/range	78.3-100 ^{o}C
Flash point	12 ^{o}C
Evaporation rate	Not Determined
Flammability (solid, gas)	Not Relevant(fluid)
Explosion limits: lower	3.5 Vol%
Upper	15 Vol%
Vapor Pressure	-60 hPa 20^{o}C
Relative Vapor Density	Not Determined
Density	0.805 -0.888 g/ml at 20ºC
Water solubility	Soluble at 20ºC
Partition coefficient (n-octanol/water)	log Pow: -0.32
Auto-Ignition temperature	Not Determined
Decomposition Temperature	425 °C

Viscosity	Not Determined
Explosive properties	Not Explosive
Oxidizing properties	The substance or mixture is not classified as oxidizing.

SECTION 10 : - Stability and Reactivity

10.1 Reactivity It's a reactive substance. Risk of ignition. Vapors may form explosive mixtures with air.

If heated Risk of ignition.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

Violent reaction with: strong oxidiser, Alkali metals, Alkaline earth metal, Acetic anhydride, Peroxides, Phosphorus oxides (e.g. P2O5), Nitric acid, Nitrate, Perchlorates, => Explosive properties

10.4 Conditions to avoid

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

10.5 Incompatible materials

There is no additional information

SECTION 11: - Toxicological information

11.1 Information of toxicological effects.

Constituents

Ethanol; Ethyl alcohol:

Acute oral toxicity:

LD50: > 2.000 mg/kg, rat, OECD test guideline 401, GLP: no, (Literature value)

Acute inhalation toxicity

LC50: > 20mg/l, 4 h, mouse, (literature value)

Acute dermal toxicity

LD50: > 2.000 mg/kg, rabbit, OECD test guideline 402, GLP: no, (literature value)

Skin corrosion/ irritation

Rabbit, Result: non irritating, OECD test guideline 404, GLP: yes, (literature value)

Serious eye damage/ eye irritation

Rabbit, Result: slightly irritating, OECD test guideline 405, GLP: no, (literature value)

Sensitization of the respiratory system and skin

Maximization Test, guinea pig, Result: non-sensitizing, OECD test guideline 406, GLP, Yes, (literature value).

11.2 Germ cell mutagenicity

Genotoxicity in vitro

Ames test, Salmonella typhimurium, with and without, Result, not mutagenic, OECD Test

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Guideline 471, GLP: No, (literatur value)

11.3 Other information

No further relevant information available.

SECTION 12: Ecological information

12.1 Toxicity

Constituents

Ethanol; ethyl alcohol:

Toxicity for fish:

LC50: > 100 mg/l, 48h, Leuciscus Idus, static test, OECD test guideline 203, GLP: no,

(literature value)

Toxicity to daphnia and other aquatic invertebrates:

EC50: > 100 mg/l, 24h, Daphnia magna, static test, OECD test guideline 202, GLP: yes,

(literature value)

Toxicity for algae:

EC50: > 100 mg/l, Chlorella pyrenoidosa static test, OECD test guideline 201, GLP: no,

(literature value)

12.2 Persistence and degradability

Constituents

Ethanol; ethyl alcohol:

Biodegradation:

aërobic, >70% Result: readily biodegradable, exposure time: 5d, OECD test guideline 301 D,

GLP: no, (literature value).

12.3 Bioaccumulation Product:

Bioaccumulation: No further relevant information available.

12.4 Mobility in soil.

Constituents:

Ethanol; ethyl alcohol

Mobility No further relevant information available.

12.5 Results of PBT- en zPzb-assessment

Constituents:

Ethanol; ethyl alcohol:

Rating:

This substance is not considered to be persistent, bio accumulative, and toxic (PBT).

This substance is not considered to be very persistent end very bio accumulative (vPvB)

12.6 Other hazardous effects:

Constituents:

Ethanol; ethyl alcohol:

Additional ecological information:

No further relevant information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information	Do not empty into drains.
Waste treatment of containers/packaging	It is a dangerous waste; only packaging which are approved (e.g. acc. to ADR) may be used.
13.2 Relevant provisions relating to waste	the allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Waste catalogue ordinance (Germany).
13.3 Remarks	Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

SECTION 14: Transport Condition

14.1 VN number

ADR	1170
RID	1170
IMDG	1170

14.2 UN Proper shipping name

ADR	Ethanol, Ethylalcohol, Ethylalcohol
RID	Ethanol, Ethylalcohol, Ethylalcohol
IMDG	Ethanol, Ethanol, Ethyl Alcohol
IATA	Ethanol

14.3 Transport Hazard class

ADR	3
RID	3
IMDG	3
IATA	3

14.4 Packing group

ADR

Packing Group	II
Classification code	F1
Hazard identification number	33
Label	3

Tunnel restriction code (D/E)

RID

Packing Group II

Classification code F1

Hazard identification number 33

Label 3

IMDG

Packing Group II

Label 3

EMS number F-E, S-D

IATA

Packing instructions 307

(cargo plane)

Packing group II

Label 3

14.5 environmental Hazards

ADR

Dangerous for the environment no

RID

Dangerous for the environment no

IMDG

Marine Pollutant no

IATA

Dangerous for the environment no

14.6 Special precautions for user

No further relevant information available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and IBC code VN

"Model regulations". Pollution Category: Z

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) not listed

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR) not listed

Water Framework Directive (WFD)

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H225	Highly flammable liquid and vapor.
H319	Causes serious eye irritation.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship