MATERIAL SAFETY DATA SHEET

According to regulation (EU)no.1907/2006

DISINFECTANT

Revision : 00	Date : July 7th, 2023	MSDS Number : 103

Section 1 - Chemical Product and Company Identification

1.1 Product Name : **DISINFECTANT**
Synonyms : solvent IPA teknis
CAS No. : 64-17-5
HS Code : 2207 10 00
Molecular Weight : 46.07 g/mol
Chemical Formula : C_2H_5OH Hill : C_2H_6O
Brand : PANCASAKTI
1.2 Manufacturer : **PT. Pancasakti Putra Kencana**
Address : Ruko Boulevard TamanTekno Blok E No.9 - 11BSD Serpong, Tangerang - Indonesia
Website : www.pancasakti.co.id
Email : sales@pancasakti.co.id
For information :Telp: +62-21- 7588 0205(Hunting) , fax:+62-21-7588 0198
1.3 Application : Industrial solvent
Emergency Telephone: +62-21-7588 0205(Hunting)

Section 2 - Hazards Identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Flammable liquid, Category 2, H225
Eye irritation, Category 2, H319

For the full text of the H-Statements mentioned in this Section, see Section 16

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word	Danger
Hazard statement(s)	
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
Precautionary statement(s)	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground/bond container and receiving equipment.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

Supplemental Hazard Statements
none

2.3 Other hazards

none

Section 3 - Composition, Information on Ingredients

3.1 Substances

Synonyms : Ethyl alcohol, EtOH
Formula : C_2H_5OH Hill : C_2H_6O
Molecular weight : 46.07 g/mol
CAS-No. : 64-17-5
EC-No. : 200-578-6
Index-No. : 603-002-00-5

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
Ethanol CAS-No. 64-17-5 EC-No. 200-578-6 Index-No. 603-002-00-5	Flammable liquid, Category 2, H225 Eye irritation, Category 2, H319	<=100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4 - First Aid Measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

MATERIAL SAFETY DATA SHEET According to regulation (EU)no.1907/2006 **DISINFECTANT**		
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Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable extinguishing media

Water, Foam, Carbon dioxide (CO_2), Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

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

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system. Suppress (knock down) gases/vapours/mists with a water spray jet.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: Protective equipment see section 8.

6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Storage class (TRGS 510): Flammable liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

Section 8 - Exposure Controls, Personal Protection

8.1 Control parameters

Derived No Effect Level (DNEL)

Application Area	Exposure routes	Health effect	Value
Worker DNEL, acute	Inhalation	Local effects	1900 mg/m³
Worker DNEL, longterm	dermal	Systemic effects	343 mg/kg Body weight
Worker DNEL, longterm	Inhalation	Systemic effects	950 mg/m³
Consumer DNEL, acute	Inhalation	Systemic effects	950 mg/m³
Consumer DNEL, longterm	dermal	Local effects	206 mg/kg Body weight
Consumer DNEL, longterm	Inhalation	Systemic effects	114 mg/m³
Consumer DNEL, longterm	oral	Systemic effects	87 mg/kg Body weight

Predicted No Effect Concentration (PNEC)

Compartment	Value
PNEC Fresh water	0,96 mg/l
PNEC Marine water	0,79 mg/l
PNEC Fresh water sediment	3,6 mg/kg
PNEC Soil	0,63 mg/kg
PNEC Aquatic intermittent release	2,75 mg/l
PNEC Sewage treatment plant	580 mg/l
PNEC oral	720 mg/kg

8.2 Exposure controls

Appropriat engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740, Size M)

Body Protection
Impervious clothing, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use (EN 143) respirator cartridges as a backup to engineering controls. If th full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Section 9 - Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	Form: liquid Colour: colourless
Odour	alcohol-like
Odour Threshold	0,1 - 5058,5 ppm
pH	7,0 at 10 g/l 20 °C
Melting point/freezingpoint	-117 °C
Initial boiling point and boiling range	78 °C at 1.013 hPa
Flash point	17 °C
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or	Upper explosion limit: 3,1 %(V) Lower explosion limit: 27,7 %(V)
explosive limits	No data available
Vapour pressure	ca.59 hPa at 20 °C
Vapour density	No data available
Relative density	0,805 - 0,812 g/cm3 at 20 °C
Water solubility	at 20 °C soluble
Partition coefficient: noctanol/water	log Pow: -0,31 (experimental) (Lit.) Bioaccumulation is not expected.
Auto-ignition temperature	427.0 °C
Decomposition temperature	Distillable in an undecomposed state at normal pressure.
Viscosity	1,2 mPa.s at 20 °C
Explosive properties	Not classified as explosive.
Oxidizing properties	none

9.2 Other safety information

Ignition temperature 425 °C

Section 10 - Stability and Reactivity

10.1 Reactivity

Vapours may form explosive mixture with air.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Risk of explosion/exothermic reaction with: hydrogen peroxide, perchlorates, perchloric acid, Nitric acid, mercury(II) nitrate, permanganic acid, Nitriles, peroxi compounds, Strong oxidizing agents, nitrosyl compounds, Peroxides, sodium, Potassium, halogen oxides, calcium hypochlorite, nitrogen dioxide, metallic oxides, uranium hexafluoride, iodides, Chlorine, Alkali metals, Alkaline earth metals, alkali oxides, Ethylene oxide silver, with, Nitric acid silver compounds, with, Ammonia potassium permanganate, with, conc. sulfuric acid Risk of ignition or formation of inflammable gases or vapours with: halogen-halogen compounds, chromium(VI) oxide, chromyl chloride, Fluorine, hydrides, Oxides of phosphorus, platinum Nitric acid, with, potassium permanganate

10.4 Conditions to avoid

Warming.

10.5 Incompatible materials

rubber, various plastics

10.6 Hazardous decomposition products

Other decomposition products - No data available
Hazardous decomposition products formed under fire conditions. - Carbon oxides
In the event of fire: see section 5

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Acute oral toxicity
LD50 Rat: 10.470 mg/kg
OECD Test Guideline 401
Symptoms: Nausea, Vomiting

Acute inhalation toxicity
LC50 Rat: 124,7 mg/l; 4 h ; vapour
OECD Test Guideline 403
Symptoms: Possible damages:, mucosal irritations

Acute dermal toxicity
No data available

Skin corrosion/irritation
Rabbit
Result: No skin irritation OECD Test Guideline 404

Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

Serious eye damage/eye irritation
Rabbit
Result: Eye irritation
OECD Test Guideline 405
Causes serious eye irritation.

Respiratory or skin sensitisation
Sensitisation test (Magnusson and Kligman):
Result: negative (IUCLID)

Germ cell mutagenicity
Genotoxicity in vitro
Ames test Salmonella typhimurium
Result: negative
Method: OECD
Test Guideline 471
In vitro mammalian cell gene mutation test
Mouse lymphoma test
Result: negative
Method: OECD Test Guideline 476

Carcinogenicity
No data available

Reproductive toxicity
Application Route: Oral Mouse Method: OECD Test Guideline 416

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Additional Information
Systemic effects: euphoria After absorption: Dizziness, inebriation, narcosis, respiratory paralysis Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

Section 12 - Ecological Information

12.1 Toxicity

Toxicity to fish
LC50 Leuciscus idus (Golden orfe): 8.140 mg/l; 48 h (IUCLID)

Toxicity to daphnia and other aquatic invertebrates
EC5 E.sulcatum: 65 mg/l; 72 h (Lit.)
EC50 Daphnia magna (Water flea): 9.268 - 14.221 mg/l; 48 h (IUCLID)

Toxicity to algae
IC5 Scenedesmus quadricauda (Green algae): 5.000 mg/l; 7 d (Lit.)

Toxicity to bacteria
EC5 Pseudomonas putida: 6.500 mg/l; 16 h (IUCLID)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)
semi-static test NOEC Daphnia magna (Water flea): 9,6 mg/l; 9 d (ECHA)

12.2 Persistence and degradability
Biodegradability 94 %
OECD Test Guideline 301E
Readily biodegradable
Biochemical Oxygen Demand (BOD) 930 - 1.670 mg/g (5 d) (Lit.)

Theoretical oxygen demand (ThOD) 2.100 mg/g (Lit.)
Ratio COD/ThBOD 90 % (Lit.)

12.3 Bioaccumulative potential
Partition coefficient: n-octanol/water log Pow: -0,31 (experimental) (Lit.)
Bioaccumulation is not expected.

12.4 Mobility in soil
Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII

12.5 Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects
Additional ecological information No interference with wastewater treatment plants are to be expected when used properly. Discharge into the environment must be avoided.

Section 13 - Disposal Considerations

13.1 Waste treatment methods
Product
Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

Section 14 - Transport Information

14.1 UN number
ADR/RID: 1170 IMDG: 1170 IATA: 1170
14.2 UN proper shipping name
ADR/RID: ETHANOL
IMDG: ETHANOL
IATA: ETHANOL

14.3 Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

14.4 Packaging group

ADR/RID: II IMDG: II IATA: II

14.5 Environmental hazards

ADR/RID: yes IMDG Marine pollutant: no IATA: yes

14.6 Special precautions for user

Further information

No data available

Section 15 - Regulatory Information

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

Section 16 - Additional Information

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

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

Revision history :

Date	Rev	Description
July 7, 2023	00	-

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. PT. Pancasakti Putra Kencana Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.