1. Identification of the substance/preparation and of the company/undertaking

Identification of the product:
Product code: E7025
Name of material: Ethanol absolute 99.9%

Use of the substance/preparation:
Solvents, disinfectant, for pharmaceuticals synthesizing, synthesis of organic products, perfumery

2. Composition/information on ingredients

Identification and amount of the components:
Synonyms: Ethanol absolute 99.9%
CAS: 64-17-5
Molecular weight: 46.07 g/mol
EC index no: 603-002-00-5
EC number: 200-578-6
Formula: C2H6O

3. Hazards identification

Highly flammable

4. First aid measures

After inhalation: Fresh air.
After skin contact: Wash off with plenty of water. Remove contaminated clothing.
After ingestion: Plenty of water to drink. Consult doctor if feeling unwell.
After eye contact: Rinse out with plenty of water with the eyelid held wide open. Summon eye specialist if necessary.

5. Fire-fighting measures

Suitable extinguishing media: foam, CO2, powder.
Extinguishing media not to be used:
Special risks: combustible. Vapours heavier than air, Formation of explosive mixtures possible with air at normal temperatures, Formation of combustion gases or dangerous vapours possible in event of fire
Special protective equipment for fire fighting: Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.
Further information: Cool container with spray water from a safe distance. Contain escaping vapours with water. Prevent fire-fighting water from entering surface water or groundwater.

6. Accidental release measures

Person-related precautionary measures: Do not inhale vapours/aerosols. Ensure supply of fresh air in enclosed rooms.
Environmental precautions: Do not allow to enter sewerage system (risk of explosion!).
Procedures for cleaning / absorption: Take up with liquid-absorbent material. Forward for disposal, clean up.

7. Handling and storage

Handling: Take measures to prevent electrostatic charging. Keep away from sources of ignition.
Storage: Tightly closed in a well-ventilated place, away from sources of ignition and heat. Storage temperature: no restrictions.
8. Exposure controls/personal protection

Exposure controls:
Occupational exposure controls: The personal protective equipment must be selected according to the working place, based on the concentration and amount of the dangerous substance. The supplier should indicate the stability of the personal protective equipment to chemical reagents.
Respiratory protection: Required when vapours/aerosols are generated. Filter A.
Hand protection: Required
Eye protection: Required
Industrial hygiene: Change contaminated clothing. Application of skin-protective barrier cream recommended. Wash hands after working with substance.

9. Physical and chemical properties

General information:
Form: Liquid
Colour: Colourless
Odour: Alcohol-like
Important health, safety and environmental information:
pH value (10 g/l H2O, 20 ºC): 7.0
Boiling temperature: 78 ºC
Flash point: 9 ºC
Explosion limits (low): 3.5 Vol%
Explosion limits (high): 15 Vol%
Vapour pressure: (20 ºC) ~ 59 hPa
Density (20 ºC): 0.81 g/cm3
Solubility in water: (20 ºC): miscible
Partition coefficient n-octanol/water: -0.32
Viscosity: (20 ºC) 1.2 mPas
Refractive index: --
Melting temperature: -117 ºC
Ignition temperature: 425 ºC

10. Stability and reactivity

Conditions to be avoided: Heating
Substances to be avoided: Alkali compounds, alkali metals, alkali oxides, strong oxidizing agents, halogen-halogen compounds, CrO3, ethylene oxide, fluorine, perchlorates, potassium permanganate/sulfuric acid, perchloric acid, permanganic acid, phosphorus oxides, nitric acid, nitrogen dioxide, hydrogen peroxide.
Hazardous decomposition products: No information available.

11. Toxicological information

Acute toxicity:
LD50 (oral, rat): 6200 mg/kg (anhydrous substance)
LC50 (inhalation, rat): > 8000 mg/l /4h. (Anhydrous substance)
LD50 (dermal, rabbit): > 20000mg/kg. (Anhydrous substance)
Specific symptoms in animal studies:
Eye irritation test (rabbit): irritations Skin irritation test (rabbit): No irritation.
Subacute to chronic toxicity: Sensibilization test (according to Magnusson and Kligman): negative
Mutagenicity: Bacterial mutagenicity: Salmonella typhimurium: negative Bacterial mutagenicity: Ames-Test: negative
Teratogenicity: An embryotoxic effect need not be feared when the threshold limit value is observed.
Further toxicological information:
After inhalation: slight irritations of: mucous membranes, Risk of absorption.
12. Ecological information

Ecotoxic effects: In high concentrations: Toxic for aquatic organisms. When used properly, no impairments in the function of waste- water- treatment plants are to be expected.

Fish toxicity: L.idus LC50: 8140 mg/l /48h. (Anhydrous substance)
Daphnia toxicity: Daphnia magna EC50: 9268-14221 mg/l /48h. (Anhydrous substance)
Algal toxic concentration limit: Sc. quadricauda ICS: 5000mg/l /d (anhydrous substance)
Bacterial toxic concentration limit: Ps. putida CE5 : 6500 mg/l /16h. (Anhydrous substance)
Protozoa toxic concentration limit: E. sulcatum EC5: 65 mg/l /72h. (Anhydrous substance)
Mobility: log P (o/w): -0.32
Bioaccumulative potential: Low probability of bioaccumulation (log P (o/w) < 1).
Bioconcentration factor: 0.66
Further ecologic data:
BOD5: 0.93-1,67g/g (anhydrous substance); COD: 1,99g/g (anhydrous substance); ThOD: 2,10g/g (anhydrous substance).
No ecological problems are to be expected when the product is handled and used with due care and attention.

13. Disposal considerations

Product: There are no uniform EU Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EU member countries through corresponding laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste.

Packaging: Disposal in compliance with official regulations. Handle contaminated packaging in the same way as the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.

14. Transport information

Road transport:
UN-No: 1170
ADR class: 3 F1 II
Correct technical name: ETHANOL (ETHYL ALCOHOL)

Sea transport:
UN-No: 1170
IMDG class: 3 II
Correct technical name: ETHANOL (ETHYL ALCOHOL)

Air transport:
UN-No: 1170
IATA/ICAO class: 3 II
Correct technical name: ETHANOL (ETHYL ALCOHOL)

15. Regulatory information

Labelling according to EC Directives
Symbol: F (Highly flammable)
R-phrases: 11 Highly flammable.
EC-Index-No: 603-002-00-5
16. Other information

Reason for the revision: General update.
Date: 18/2/2011

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