

Fire fighting measures

Extinguishing Media

-in case of fire use water spray or fog, alcohol resistant foam, dry chemical or CO2 (S43), Sand, Dolomite etc.

Special Fire Fighting Procedures

-Do not use water jets. Wear breathing apparatus. Use Water to keep fire exposed containers cool and to disperse vapours. Dike for water control. Cool containers exposed to flames with water until well after the fire is out. Move container from the fire area if it can be done without risk. Use water spray to reduce vapours. For large scale fires in cargo areas, use unmanned hose holder or monitor nozzles if possible. If not, withdraw and let fire burn out. If risk of water pollution occurs, notify appropriate authorities.

Unusual Fire & Explosion Hazards

-May explode in a fire. May develop highly toxic or corrosive fumes if heated. Vapour explosion and poison hazard indoors, outdoors and in sewers.

Accidental release measures

Immediate actions

-Shut off all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate.

Clean up procedures

-Provide ventilation and confine spill. Do not allow runoff to sewer. Absorb spillage in a suitable inert material such as vermiculite, dry sand or earth and place into appropriate container. Avoid contact with skin or inhalation of spillage, dust or vapour. Clean up personnel should use respiratory and liquid contact safety protection clothing.

Handling and Storage

Usage precautions

-Keep away from sources of ignition. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Wear full protective clothing for aged exposure and/or high concentrations.

Storage Precautions

-Flammable/combustible-keep away from oxidizers, heat and flames. Isolate from other materials. Keep in a cool, dry, ventilated stage and closed containers. Ground container and transfer equipment to eliminate static sparks risk.

Storage Criteria

-Chemical storage.

Exposure Controls and Personnel Protection

| Ingredient Name | CAS No. | STD | LT EXP(8 hrs.) | ST EXP(15 mins.) |
|-------------------------------|---|------------|-----------------------|-------------------------|
| 2-Butoxyethanol | 111-76-2 | OES | 25 ppm(Sk) | No std. |
| 1-Ethoxy-Propan-2-ol | No exposure limits noted for this ingredient. | | | |
| 1-Methoxy-Propan-2-ol | 107-98-2 | OES | 100 ppm (Sk) | 1120 mg/m3 |
| Proprietary H/Carbon Solvents | No exposure limits noted for this ingredient. | | | |

-Product as supplied from the constituent ingredients above can be absorbed through the skin.

Protective Equipment

Ventilation

-provide adequate general and local exhaust ventilation.

Respirators

-No specific recommendation made, but respiratory protection must be used if the general level exceeds the Occupational Exposure Level (OEL).

Protective Gloves

-Use protective Gloves. Chloroprene, Nitrile or Butyl Rubber Industrial grade Gloves.

Eye protection

-Wear approved safety goggles. Full face shield protection preferred.

Other Protection

-Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

Hygienic Work routines

-DO NOT SMOKE IN WORK AREA. Wash at the end of each work period and before food consumption, smoking or using the toilet. Remove any clothing that becomes contaminated immediately. Do not eat or drink whilst working with this material.

Physical and Chemical Properties

Appearance

-colourless liquid

Odour/Taste

-Mild. Rancid. Sweet.

Solubility Description

-Soluble in water. Soluble in: Organic Solvents (most)

Changes of state

Freezing point

Value/range
-64

unit **method**
deg C.

Bong point/range

143-164

deg C.

Flash Point

57

deg C. Pensky Martens C.Cup.

Auto ignition temperature

252

deg C.

Explosion hazard

Explosion limits

-lower 1.4 % -upper 17%

Vapour pressure

-80Pa @ 20 deg. C.

Density

-0.896 - 0.902 @ 20 deg. C.

Solubility

-completely soluble in water

PH Value

-Neutral

viscosity

-3.1 mPas @ 20 deg. C.

Stability and Reactivity

Stability

-Avoid: heat, sparks, moisture and flames.

Materials to avoid

-Bases, Alkalies (Inorganic), Strong Oxidizing agents, Strong Reducing agents

Hazardous Decomposition products

-Material does not decompose up to the specified boiling point. Thereafter in case of fire, material can create Vapours/gases/Fumes of: Carbon Monoxide (CO), Carbon Dioxide (CO₂). The possibility of forming Peroxide exists.

Toxicological Information

Toxic Dose-LD50

-ingestion: No data is available for oral toxicity. The values of the ingredients are higher than LD50 (oral rat) : 2000mg/kg.

Skin Contact

-Repeated/prolonged contact causes degreasing, irritation and possible dermatitis.

Eye Contact

-Initial eye contact will cause chronic eye irritation. Inhalation -Higher concentrations can cause irritation of the respiratory system, nausea and dizziness.

Ecological Information

Mobility

-Dissolves in water. Product remaining on surface evaporates within one day. Larger volumes may penetrate soil layer and could contaminate groundwater.

Bio-Accumulation

Does not significantly bio-accumulate.

Degradability

-Material is readily bio-degradable meeting the 10 day window criterion. Oxidizes rapidly by photochemical reactions in air. This together with its high flash point means it can be treated as a very low VOC potential material. Integrated environmental half-life is estimated to be 1-< 10 days.

Acute Fish Toxicity

-Practically non toxic. However best practice states material must not be drained.

Disposal Considerations

Disposal methods UK

-Dispose of in accordance with Local Authority requirements.

EEC waste listing class according to (94/3/EG)

-Disposal No. 140303 (Solvents/Solvent blends not containing Halogenated material)

Suggested disposal/recovery methods

-Material can be recovered by distillation/filtration methods.

-Material can be disposed of by high temp. incineration methods equipped with water fume scrubbing.

-Minor waste content from incineration or filtration waste should be collected and disposed of by licensed Chemical waste removal Contractors. Specification of minor waste content will be mostly that of the production materials for which the cleaning material was used. To advise the disposal contractor therefore, refer to the production material data source.

