HEALTH & SAFETY DATA SHEET.

Identification of the Substance/Preparation and Company.

SURCLEAN SCREENCLEAN 400

Company: Surclean **Main and Emergency Tel No: +44 (01983) 290333**

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Composition/Information on Ingredients

General description: a mixture of Glycol ethers, esters and proprietary solvents for the removal of Solder Paste, Flux residues and uncured Adhesives from Printing Stencils and Screens in Electronics Manufacture.

Hazardous ingredients

Name of Ingredient	Concentration	Warning Symbol	UN Number
2-Butoxyethanol	35-45%	R20/21/22/37	-
1-Ethoxy-Propan-2-ol	35-45%	R10	1987
Proprietary hydrocarbon solvents.	<10%	R36/37	-
1-Methoxy Propan-2-ol	<15%	" "	3092

Hazards Identification

-Odour: Slight fragrence
-Appearance: Colourless liquid
-Contact with skin: Prolonged skin contact will result in defatting of the skin, irritation, and possible dermatitus.
-Inhalation: Irritating to eyes and respiratory system (R36/37. May cause dizziness, confusion, headache or stupor).

First aid measures

Contact with skin
-wash the affected area with plenty of soap and water.
-afterwards, a suitable moisturising skin cream can be applied.

Contact with eyes
-If material has got into eyes, wash out immediately with plenty of water for at least 15 minutes.
-Seek medical attention if any irritation persists.

Ingestion
-Give patient plenty of water to drink. NEVER MAKE AN UNCONCIOUS PERSON VOMIT OR DRINK FLUIDS. DO NOT INDUCE VOMITING.
-Seek medical attention immediately.

Inhalation and General
-Remove the patient from source of exposure to fresh air and lie down. Seek medical advice if neccesary. If casualty is unconcious, place into the recovery position. Perform artificial respiration if breathing has stopped. When breathing is difficult, properly trained personnel may assist affected person by administering 100% Oxygen. Keep affected person warm and at rest. Seek prompt medical attention.

Fire fighting measures

Extinguishing Media

-in case of fire use water spray or fog, alcohol resistant foam, dry chemical or C02 (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 bum 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 Precations

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

Storage Criteria

-Chemicaal storage.

Exposure Controls and Personnel Protection

Ingredient Name	CAS No.	STD	LT EXP(8 his.)	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
Proprietory 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 protecttion preferred.
Other Protection
-Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.
Hygenic 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	**Value/range**	**unit**	**method**
Freezing point	-64	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 (C02). The possibility of forming Peroxide exsists.

Toxicoloalcal 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 dermatitus.
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 crriterion. 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
-Dipose 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 meths
-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.

Transport Information

Ground Transportation ADR/RID
- -ADR/RID Class 3 Alcohols, n.o.s. (Cont. Glycol Ethers)
- -item 31 C
- -UN number 1987

Sea Transportation IMDG - Code
- -IMGD Classification 3.3 Alcohols, n.o.s. (font. Glycol Ethers)
- -page 3303
- -UN number 1987
- -Packaging class III
- -EMS number 3 - 06
- -MFAG 305

Air Transportation ICAO-TI and IATA-DGR
- -ICAO/IATA Classification 3 Alcohols, n.o.s. (Cord. Glycol Ethers)
- -UN ID number 1987 Packaging instructions - 309 / 60 I
- -Packaging Class 111 - 309 / 10 I
- -10 / 220 1 (Cargo Aircraft only)

Regulatory Information

EEC Supply Label- **X** **IRRITANT**

Risk Phrases
- -820/21/22 Harmful by inhalation, in contact with skin/eyes, and if swallowed.
- -R37 Irritating to respiratory system.

Safety Phrases
- -S-24/25 Avoid contact with skin and eyes.
- -S36/37 Wear suitable protective clothing and gloves.

Statutary Instruments
- -Chemicals (Hazard Information and Packaging) regulations.
- -Control of Substances Hazardous to Health (CoSHH) regulations.

Guidance Notes
- -Occupational Exposure Limits HSE publication No. EH40.

Issue date and revision number

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Disclaimer

This information relates only to the specific material designated and will not be valid for such material used in combination with any other material or in any process. Such information is, to the best of the Manufacturers knowledge and belief, accurate and reliable as of the date shown. However, no warranty, guarantee or representation is made as to its accuracy, reliability or completeness. It is the users sole responsibility to satisfy himself as to the suitability of such information for their particular application.