

1. IDENTIFICATION OF SUBSTANCES / MIXTURE AND OF THE COMPANY / UNDERTAKING**Product Identifiers**Product Name: **Ecoclear De-bonding Fluid**

Product code: OCON-178

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

Identified uses: Organic solvent for removal of wax from optical and electronic equipment.

Uses advised against: This product is to be used only for the purpose stated above.

Details of the supplier of the safety data sheetManufacturer: Logitech Ltd
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Old Kilpatrick
Glasgow
G60 5EU
Scotland, UK

Telephone +44 (0) 1389 875444

E-mail coshh.info@logitech.uk.com

Emergency telephone number

+44 (0) 1389 875444 (09:00 – 17:00 Monday to Friday)

2. HAZARDS IDENTIFICATION**Classification of the substance or mixture**

This material is a substance

Classification according to Regulation (EC) 1272/2008 (EU 'CLP' regulation) as amended

Skin irritation	Category 2	H315 - Causes skin irritation
Skin Sensitization	Category 1	H317 - May cause an allergic skin reaction
Acute aquatic toxicity	Category 1	H410 - Very toxic to aquatic life with long lasting effects
Chronic aquatic toxicity	Category 1	
Flammable liquid	Category 3	H226 - Flammable liquid and vapour

Classification according to CHIP and EU Directives 67/548/EEC or 1999/45/ECSymbol(s) Xi - Irritant
N - Dangerous for the environmentRisk phrase(s) R10 - Flammable
R38 - Irritating to skin
R43 - May cause sensitization by skin contact
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment**Label elements****Labelling elements according to Regulation (EC) 1272/2008 (EU 'CLP' regulation)**

Pictogram (s):



Signal Word: WARNING

Hazard Statements

- Flammable liquid and vapour
- Causes skin irritation
- May cause an allergic skin reaction
- Very toxic to aquatic life with long lasting effects

Precautionary Statements

- Avoid release to the environment.
- Wear protective gloves/protective clothing/eye protection/face protection.
- IF SWALLOWED: Immediately call a POISON CENTER or doctor
- Do NOT induce vomiting.
- IF ON SKIN: Wash with plenty of soap and water.
- IF SKIN irritation or rash occurs: Get medical advice/attention.
- Dispose of contents/containers to an approved waste disposal company

Labelling elements according to CHIP and EU Directives 67/548/EEC or 1999/45/EC

Symbol:



Indication of Danger: IRRITANT DANGEROUS FOR THE ENVIRONMENT

Risk phrases: Flammable
Irritating to skin
May cause sensitization by skin contact
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Safety phrases: Keep container in a well-ventilated place
Keep away from sources of ignition - No smoking
Avoid contact with skin
Wear suitable gloves
Avoid release to the environment. Refer to special instructions/safety data sheet

Other hazards

No information available

3. COMPOSITION / INFORMATION ON INGREDIENTS

This material is a substance

Component	CAS No.	EC No.	%
d-limonene	5989-27-5	227-813-5	100

4. FIRST AID MEASURES

Description of first aid measures

General advice

Remove from source of exposure.

Inhalation

Remove from exposure. If there are signs of irritation or difficulty breathing seek immediate medical attention.

Ingestion

Wash out mouth thoroughly with water. Drink plenty of water. Do not induce vomiting. Seek medical attention

Skin contact

Wash immediately with soap and water. Remove all contaminated clothing. In the event of irritation, rashes or other complaints, seek medical attention

Eye contact

Rinse immediately, including under the eye lids, with plenty of water for at least 10 minutes. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

This material can cause skin sensitisation

Indication of any immediate medical attention and special treatment needed

None

5. FIRE-FIGHTING MEASURES**Extinguishing media**

Suitable extinguishing media: Water spray, sand, extinguishing powder, CO2.
Unsuitable extinguishing media: None

Special hazards arising from the substances or mixture

This product is an organic compound. Combustion may produce irritating or toxic by-products including hydrocarbons and carbon monoxide.

Advice for fire fighters

Use self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Keep people away from the spillage.
Remove all sources of ignition.
Wear protective clothing

Environmental precautions

Do NOT allow to enter sewers, drains or waterways.
Use absorbent materials (granules, sand, earth, sawdust, spill-kit materials) to contain all spillages to prevent contamination of the ground or water systems.

Methods and material for containment and cleaning up

Ensure no sources of ignition are present.
Collect spillage with an inert absorbent (absorbent granules, sawdust, sand etc), transfer to sealed containers and dispose of as hazardous waste. Treat all such residues as flammable
Ventilate area to dispel any residual vapour.

Reference to any other sections

See section 8 for information on Personal protective equipment (PPE)
See section 13 for disposal information

7. HANDLING AND STORAGE**Precautions for safe handling:**

Keep away from all sources of ignition including open flames and hot surfaces. Take precautions to prevent static discharge.

Assess whether there is a likelihood of an explosive air / product mixture being created. If so, undertake a DSEAR risk assessment and implement the identified control measures to prevent fires or explosions. This will include the use of ATEX rated equipment where an explosive atmosphere may occur.

Conditions for safe storage, including any incompatibilities

This material will damage / soften / dissolve various plastics. If using plastic storage containers ensure they are suitable for use with limonene.

Keep containers tightly sealed in a cool, well ventilated area away from ignition sources.

Do not store in direct sunlight or near other heat sources.

Store small containers (up to 5 litres) in suitable flammable liquid storage cabinets when not in use. Larger volumes (over 5 litres) must be kept in a designated flammable storage area.

Specific end use(s)

None identified

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

There is no UK Workplace Exposure Limit (WEL) or EU Indicative Occupational Exposure Limit Value (IOELV) for this material.

This does NOT mean that exposure to vapour does not need to be controlled.

Exposure limits may be specified in other countries. Check national legislation for appropriate exposure limits.

Exposure should be controlled to avoid exceeding the specified limits.

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available

Exposure controls

Appropriate engineering controls

Use ventilation (natural or forced) or extraction to maintain a low level of airborne vapour, especially in confined spaces.

Personal Protective Equipment (PPE).

Should PPE be necessary to control exposure, use;

Eye / face protection

EN approved safety glasses with side shields, goggles or face shield.

Skin protection:

Chemically impervious gloves suitable for use with limonene e.g. Nitrile gloves. Follow manufacturer recommendations on inspection and replacement.

Fabric gloves or gloves with seams are not suitable.

Wear plastic aprons, plastic arm protectors and safety boots / Wellingtons if handling large quantities.

Respiratory protection:

If engineering measures fail to maintain a very low airborne concentration of the product wear an EN149 approved respirator fitted with a suitable organic vapour filter (Filter type A will offer some protection).

The correct selection, fitting, use, storage and maintenance of respiratory protective equipment is important. Follow manufacturer's recommendation or seek expert advice. HSE document HSG 53 provides some guidance

The use of respiratory protection should only be considered as a short term safety measure until effective engineering controls are implemented.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemicals properties

Appearance:	Clear, colourless liquid
Odour:	Citrus
Odour threshold:	information not available
pH:	information not available
Melting point:	-74 °C
Boiling point:	176 - 179 °C
Flash point:	49 °C (TCC method)
Evaporation rate	information not available
Flammability	information not available
Upper/lower explosive limits	Upper 6.1% vol Lower 0.7 % vol
Vapour pressure	6.0 mm HG @ 25 C
Vapour density	4.94 (air = 1)
Density	0.85 g/ml @ 25 C
Log P (o/w)	information not available
Solubility in water:	Insoluble
Solubility in other	
Ingredients:	information not available
Partition coefficient	
Octanol/water:	information not available
Auto-ignition temperature	information not available
Decomposition temperature	information not available
Viscosity	information not available
Ignition temperature	information not available
Oxidising properties:	Not oxidising.

Other information

No additional data available

10. STABILITY AND REACTIVITY

Reactivity

Not reactive to materials commonly used in the transportation, handling and storage. Can dissolve / soften some plastics

Chemical stability

Stable under normal conditions of use.

Possibility of hazardous reactions

No hazardous reactions known under normal conditions of use

Conditions to avoid

Unsuitable working materials include various plastics.

Heat and ignition sources

Incompatible materials

Strong oxidizing agents, strong acids, strong bases.

Hazardous decomposition products

Carbon dioxide, Carbon monoxide, organic compounds

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity	Oral: LD 50 (rat): > 4400 mg / kg Dermal: LD 50 (rabbit): > 5000 mg / kg
Skin corrosion/irritation	no data available.
Serious eye damage/ eye irritation	no data available.
Respiratory or skin sensitisation	may cause skin sensitisation by contact.
Germ cell mutagenicity	no data available

Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. IARC Group 3: Not classifiable as to its carcinogenicity to humans.
Reproductive toxicity	no data available
Specific target organ toxicity – Single exposure	no data available.
Specific target organ toxicity – Repeated exposure	no data available.
Aspiration hazard	no data available.

Further information

The toxicological properties have not been fully investigated. See RTECS entry for complete information.

12. ECOLOGICAL INFORMATION

Toxicity

Acute toxicity for fish	no data available
Acute toxicity for crustacea	no data available
Acute toxicity for algae	no data available

Persistence and biodegradability

Data not available.

Bioaccumulative potential

Data not available.

Mobility in Soil

Data not available.

Results of PBT and vPvB assessment

Data not available.

Other adverse effects

Very toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product

Dispose of product as hazardous waste in accordance with local, national and international legislation, using an approved registered waste disposal company.
The European Waste Code will depend upon the use of the product and cannot be specified here.

Packaging

Clean packaging can be disposed of as general waste: European Waste Code 15 01 xx (xx will depend upon the type of packaging e.g. plastic, cardboard etc. Refer to European Waste Catalogue).
Containers previously used to store this product that are now free of the product (residues will evaporate) can be disposed of as general (non-hazardous) waste. Recycle such containers where possible.

14. TRANSPORT INFORMATION

UN number

2319

	ADR/RID	IMDG	IATA
UN proper shipping name	Terpene Hydrocarbons N.O.S (d-limonene)	Terpene Hydrocarbons N.O.S (d-limonene)	Terpene Hydrocarbons N.O.S (d-limonene)
Transport hazard class(s)	3	3	3
Packing group	III	III	III

Marine pollutant - YES

Special precautions for user

None identified

Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code

No information available

15. REGULATORY INFORMATION

This Safety Data Sheet has been prepared in accordance with the requirements of regulation (EC) No 1907/2006 as amended by regulation (EU) No 453/2010.

Workplace exposure Limits given in section 8 have been taken from the UK HSE document: EH40/2005 Workplace exposure limits as amended.

Relevant regulations:

Regulation (EC) 1272/2008 (EU 'CLP' regulation)

Regulation (EC) 790/2009 First Adaptation to Technical Progress (ATP) for CLP regulation

Regulation (EC) 286/2011 Second Adaptation to Technical Progress (ATP) for CLP regulation

EU Directive 67/548/EEC ('Dangerous Substances Directive')

Regulation (EC) No 1907/2006 ('REACH')

Regulation (EU) No 453/2010.

DSEAR: Dangerous Substances and Explosive Atmospheres Regulations 2002

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

None identified

Chemical safety assessment

A Chemical Safety Assessment has not been undertaken for this product.

16. OTHER INFORMATION

Changes from previous version (version 2):

- a) Change of name (MSDS Title, section 1 and page footers)
- b) Section 2
 - Provision of Hazard statement in CLP classification
 - Removal of S and H reference numbers in labelling information
 - Provision of CHIP labelling information

The information contained in the Safety Data Sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, storage, transportation and disposal. It is not intended as a warranty or specification. The information relates only to the product specified and may not be suitable for combinations with other materials.