

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Trade name: 4140

- **Other Means of Identification:** Flux Remover for PC Boards
- **Related Part Number:** 4140-Liquid, 4140-50ML, 4140-1L, 4140-4L, 4140-20L, 4140-P

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

- **Application of the substance / the mixture** Flux remover for electronics
- **Uses advised against** Not available

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

MG Chemicals
Heame House, 23 Bliston Street
Sedgely Dudley DY3 1JA.
United Kingdom
+(44) 1663 362888

MG Chemicalst Ltd.
18-20, Msida Road,
Gzira, GZR 1401
MALTA

MG Chemicals Ltd. (Head Office)
1210 Corporate Drive
Burlington, Ontario L7L 5R6
CANADA
+(1) 905-331-1396
info@mgchemicals.com

- **Further information obtainable from:** sds@mgchemicals.com

1.4 Emergency telephone number:

3E (Access code: 335388)
+(44) 20 3514787
+(1) 760 476 3961
UK Toll free: +(0) 800 680 0425

Members of the public seeking specific information on poisons should contact:
In England and Wales: NHS 111 - dial 111
In Scotland: NHS 24 - dial 111

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

- **Classification according to Regulation (EC) No 1272/2008**
Flam. Liq. 2 H225 Highly flammable liquid and vapour.
Eye Irrit. 2 H319 Causes serious eye irritation.

2.2 Label elements

- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the GB CLP regulation.

(Contd. on page 2)

— GB —

Safety data sheet

according to UK REACH

Page 2/11

Printing date 31.10.2025

Version number 2.05 (replaces version 1.00)

Revision: 31.10.2025

Trade name: 4140

(Contd. of page 1)

· Hazard pictograms



GHS02 GHS07

· Signal word Danger

· Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

· Precautionary statements

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P280 Wear protective gloves, protective clothing, and eye protection.

P370+P378 In case of fire: Use CO₂, powder or water spray to extinguish.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents and container in accordance with local, regional, and national regulations.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

· Determination of endocrine-disrupting properties Endocrine Disruptor substance $\geq 0.1\%$ = none

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5	ethanol ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319	93%
CAS: 67-63-0 EINECS: 200-661-7 Index number: 603-117-00-0	Propan-2-ol ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	5%
CAS: 141-78-6 EINECS: 205-500-4 Index number: 607-022-00-5	ethyl acetate ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	2%

· Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· General information: Immediately remove any clothing soiled by the product.

(Contd. on page 3)

GB

Safety data sheet according to UK REACH

Page 3/11

Printing date 31.10.2025

Version number 2.05 (replaces version 1.00)

Revision: 31.10.2025

Trade name: 4140

(Contd. of page 2)

- **After inhalation:**
Remove person to fresh air and keep comfortable for breathing.
If feeling unwell: Call a POISON CENTRE or doctor.
- **After skin contact:**
Take off immediately all contaminated clothing.
Wash with plenty of soap and water.
- **After eye contact:**
Rinse cautiously with water for 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice or attention.
- **After swallowing:**
Rinse mouth.
Do NOT induce vomiting.
If symptoms persist consult doctor.
- **Information for doctor:** Treat symptomatically
- **4.2 Most important symptoms and effects, both acute and delayed**
See section 11 for additional information.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

* SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
 - **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture**
Vapors are heavier than air. Vapors may travel to sources of ignition near the ground. They can cause flash fire or ignite explosively.
Prevent fire-fighting wash from entering waterway or sewer system.
 - **Hazardous combustion products:** Carbon Oxides (CO_x)
- **5.3 Advice for firefighters**
 - **Protective equipment:** Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Remove or keep away all sources of extreme heat or open flames.
- **6.2 Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Collect liquid in a sealable, chemical-resistant container.
Wash residue with a paper towel and place dirty towels in container.
Use soap and water to remove the last traces of residue.

(Contd. on page 4)

— GB —

Trade name: 4140

(Contd. of page 3)

· **6.4 Reference to other sections**

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

- Wear protective gloves and eye protection.
- Wash hands and exposed skin thoroughly after handling.
- Take off contaminated clothing and wash it before reuse.
- Avoid breathing mist, spray, or vapors.

· **Information about fire - and explosion protection:**

- Keep ignition sources away - Do not smoke.
- Protect against electrostatic charges.
- Use explosion-proof apparatus / fittings and spark-proof tools.
- Ground and bond container and receiving equipment.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

- **Requirements to be met by storerooms and receptacles:**
 - Store in a well-ventilated place. Keep cool.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
 - Keep container tightly sealed.
 - Store in cool, dry conditions in well sealed receptacles.
- **Storage class:** 3

· **7.3 Specific end use(s)** See section 1.2

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

· Ingredients with limit values that require monitoring at the workplace:	
64-17-5 ethanol	
WEL	Long-term value: 1920 mg/m ³ , 1000 ppm
67-63-0 Propan-2-ol	
WEL	Short-term value: 1250 mg/m ³ , 500 ppm Long-term value: 999 mg/m ³ , 400 ppm
141-78-6 ethyl acetate	
WEL	Short-term value: 1468 mg/m ³ , 400 ppm Long-term value: 734 mg/m ³ , 200 ppm

· **Additional information:**

- The lists valid during the making were used as basis.
- Refer to the national or regional occupational exposure limit regulation for abbreviations and acronyms.

· **8.2 Exposure controls**

- **Appropriate engineering controls** Keep airborne concentrations below exposure limits.

(Contd. on page 5)

Trade name: 4140

(Contd. of page 4)

· **Individual protection measures, such as personal protective equipment**

· **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes and skin.

· **Respiratory protection:**

- If the product is heated or worker has a known allergic reaction, consider using a full mask with organic vapor cartridge or with an independent air supply.

· **Hand protection**



Protective gloves: EN374

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection**



Safety glasses or tightly sealed goggles: EN 166

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

- | | |
|---|-----------------------------|
| · Physical state | Liquid |
| · Form: | Low viscosity |
| · Colour: | Colourless |
| · Odour: | Alcohol-like |
| · Odour threshold: | Not available |
| · Boiling point or initial boiling point and boiling range | 78 °C (64-17-5 ethanol) |
| · Flammability | Highly flammable. |
| · Lower and upper explosion limit | |
| · Lower: | 3.5 Vol % (64-17-5 ethanol) |
| · Upper: | 15 Vol % (64-17-5 ethanol) |
| · Flash point: | 12 °C (67-63-0 Propan-2-ol) |
| · Auto-ignition temperature: | 425 °C (64-17-5 ethanol) |
| · Solubility | |
| · water: | Fully miscible. |
| · Vapour pressure at 20 °C: | 59 hPa (64-17-5 ethanol) |

(Contd. on page 6)

Safety data sheet

according to UK REACH

Trade name: 4140

(Contd. of page 5)

<ul style="list-style-type: none"> · Relative density at 25 °C: · Vapour density (air=1): · Particle characteristics 	<p>0.791</p> <p>Not available</p> <p>Not applicable.</p>
<p>· 9.2 Other information</p>	
<p>· 9.2.1 Information with regard to physical hazard classes</p> <ul style="list-style-type: none"> · Flammable liquids 	
<p>Highly flammable liquid and vapour.</p>	
<p>· 9.2.2 Other safety characteristics</p> <ul style="list-style-type: none"> · Evaporation rate · Ignition temperature: · Explosive properties: 	
<p>Not available</p> <p>Product is not selfigniting.</p> <p>Product is not explosive. However, formation of explosive air/vapour mixtures are possible.</p>	
<p>· Solvent content:</p> <ul style="list-style-type: none"> · Organic solvents: · VOC (EC) · Solids content: 	
<p>100.50 %</p> <p>100.50 %</p> <p>0.0 %</p>	

* SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability** Chemically stable at normal temperatures and pressures.
 - **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** Avoid ignition sources, open flames, and incompatible substances.
- **10.5 Incompatible materials:**
 - Strong acids
 - Strong bases
 - Halogenated compounds
 - Strong oxidizing agents
 - Aluminum at temperatures ≥ 49 °C
- **10.6 Hazardous decomposition products:** Hazardous combustion products: see section 5.

* SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
 - **Acute toxicity** Based on available data, the classification criteria are not met.

<p>· LD/LC50 values relevant for classification:</p>		
<p>64-17-5 ethanol</p>		
Oral	LD50	7,060 mg/kg (rat)
Inhalative	LC50/4 h	20,000 mg/L (rat)
<p>67-63-0 Propan-2-ol</p>		
Oral	LD50	5,045 mg/kg (rat)

(Contd. on page 7)

Safety data sheet

according to UK REACH

Trade name: 4140

(Contd. of page 6)

Dermal	LD50	12,800 mg/kg (rabbit)
Inhalative	LC50/4 h	30 mg/L (rat)
141-78-6 ethyl acetate		
Oral	LD50	5,620 mg/kg (rabbit)
Inhalative	LC50/4 h	1,600 mg/L (rat)

- **Primary irritant effect:**
 - **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
 - **Serious eye damage/irritation** Causes serious eye irritation.
 - **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Summary of Effects and Symptoms by Routes of Exposure**
 - **Eyes:**
 - pain
 - tearing of the eyes
 - redness, serious irritation
 - **Skin:** dry skin, redness
 - **Inhalation:**
 - Excessive exposure may cause narcotic effects, weakness, headaches, and unconsciousness.
 - **Swallowed:**
 - drowsiness or dizziness
 - nausea, vomiting
 - headache
 - slurred speech
 - **Subacute to chronic toxicity:**
 - **Delayed and immediate effects as well as chronic effects from short and long-term exposure**
 - No further relevant information available.

11.2 Information on other hazards

· Endocrine disrupting properties
None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

· Aquatic toxicity:	
64-17-5 ethanol	
LC50	>1,000 mg/L (fish) Biodegradable
67-63-0 Propan-2-ol	
EC50/ 24 h	5,102 mg/L (daphnia)
EC50/ 72 h	>2,000 mg/L (algae)
LC50 96h	9,640 mg/L (minnow)

(Contd. on page 8)

Trade name: 4140

(Contd. of page 7)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
 - **Additional ecological information:**
 - **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
 - **Recommendation** This material and its container must be disposed of as hazardous waste.

· European waste catalogue	
HP3	Flammable
HP4	Irritant - skin irritation and eye damage

- **Uncleaned packaging:**
 - **Recommendation:**

Containers may still present a chemical hazard/ danger when empty.
Dispose of contents in accordance with all local, regional, national, and international regulations.
Where possible retain label warnings and SDS and observe all notices pertaining to the product.
 - **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

* SECTION 14: Transport information

· 14.1 UN number or ID number <ul style="list-style-type: none">· ADR, IMDG, IATA	UN1987
· 14.2 UN proper shipping name <ul style="list-style-type: none">· ADR, IMDG· IATA	ALCOHOLS, N.O.S. (ethanol, Propan-2-ol) Alcohols, n.o.s. (ethanol, Propan-2-ol)



(Contd. on page 9)

— GB —

Safety data sheet
according to UK REACH

Trade name: 4140

(Contd. of page 8)

<p>· 14.3 Transport hazard class(es)</p> <p>· ADR, IMDG, IATA</p>	
	
<p>· Class</p> <p>· Label</p>	<p>3 Flammable liquids.</p> <p>3</p>
<p>· 14.4 Packing group</p> <p>· ADR, IMDG, IATA</p>	
<p>II</p>	
<p>· 14.5 Environmental hazards:</p>	
<p>Not applicable.</p>	
<p>· 14.6 Special precautions for user</p>	
<p>Not applicable.</p>	
<p>· Hazard identification number (Kemler code):</p> <p>· EMS Number:</p> <p>· Stowage Category</p>	<p>33</p> <p>F-E,S-D</p> <p>B</p>
<p>· 14.7 Maritime transport in bulk according to IMO instruments</p>	
<p>Not applicable.</p>	
<p>· Transport/Additional information:</p>	
	
<p>Limited Quantity</p> <p>4140-50ML, 4140-1L, 4140-P</p>	
<p>· ADR</p>	
<p>· Limited quantities (LQ)</p> <p>· Excepted quantities (EQ)</p> <p>· Transport category</p> <p>· Tunnel restriction code</p>	<p>1L</p> <p>Code: E2</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 500 ml</p> <p>2</p> <p>D/E</p>
<p>· IMDG</p>	
<p>· Limited quantities (LQ)</p> <p>· Excepted quantities (EQ)</p>	<p>1L</p> <p>Code: E2</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 500 ml</p>
<p>· UN "Model Regulation":</p>	
<p>UN 1987 ALCOHOLS, N.O.S. (ETHANOL, PROPAN-2-OL), 3, II</p>	

Trade name: 4140

(Contd. of page 9)

SECTION 15: Regulatory information

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

· Poisons Act

· Regulated explosives precursors (Part 1)
None of the ingredients is listed.
· Regulated poisons (Part 2)
None of the ingredients is listed.
· Reportable explosives precursors (Part 3)
None of the ingredients is listed.
· Reportable poisons (Part 4)
None of the ingredients is listed.

· Directive 2012/18/EU

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category P5c FLAMMABLE LIQUIDS**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II
None of the ingredients is listed.
· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))
None of the ingredients is listed.
· Annex II - REPORTABLE EXPLOSIVES PRECURSORS
None of the ingredients is listed.
· Regulation (EC) No 273/2004 on drug precursors
None of the ingredients is listed.
· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors
None of the ingredients is listed.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

- H225 Highly flammable liquid and vapour.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- EUH066 Repeated exposure may cause skin dryness or cracking.

(Contd. on page 11)

Safety data sheet according to UK REACH

Page 11/11

Printing date 31.10.2025

Version number 2.05 (replaces version 1.00)

Revision: 31.10.2025

Trade name: 4140

(Contd. of page 10)

· Classification according to Regulation (EC) No 1272/2008	
Flammable liquids	On basis of test data
Serious eye damage/irritation	The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

- **Department issuing SDS:** Regulatory department
- **Contact:** sds@mgchemicals.com
- **Version number of previous version:** 1.00
- **Abbreviations and acronyms:**
 - ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
 - IMDG: International Maritime Code for Dangerous Goods
 - IATA: International Air Transport Association
 - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 - EINECS: European Inventory of Existing Commercial Chemical Substances
 - ELINCS: European List of Notified Chemical Substances
 - CAS: Chemical Abstracts Service (division of the American Chemical Society)
 - VOC: Volatile Organic Compounds (USA, EU)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - PBT: Persistent, Bioaccumulative and Toxic
 - vPvB: very Persistent and very Bioaccumulative
 - Flam. Liq. 2: Flammable liquids – Category 2
 - Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
 - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- *** Data compared to the previous version altered.**

— GB —