

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

1.1 Product identifier

· **Trade name: 835**

· **Other Means of Identification:** Rosin Flux

· **Related Part Number:** 835-Liquid, 835-100ML, 835-MLCA, 835-1L, 835-4L, 835-20L

· **UFI:** WEJ0-M0RR-E00J-PERH

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

· **Application of the substance / the mixture** Flux

· **Uses advised against** Not available

1.3 Details of the supplier of the safety data sheet

· **Manufacturer/Supplier:**

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

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

MG Chemicalst Ltd.
Level 2, Vision Exchange, Building Territorials Street,
Zone 1, Central Business, District,
Birkirkara CBD 1070,
MALTA

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

1.4 Emergency telephone number:

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

Verisk 3E (Access code: 335388)

+(44) 20 3514787

+(1) 760 476 3961

UK Toll free: +(0) 800 680 0425

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

· **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 2 H225

Highly flammable liquid and vapour.



GHS07

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Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the GB CLP regulation.

Hazard pictograms



GHS02 GHS07

Signal word Danger

Hazard-determining components of labelling:

Rosin, polymerized
butanol
ethanol

Hazard statements

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

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.
P261 Avoid breathing fumes and vapors.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves, protective clothing, and eye protection.
P370+P378 In case of fire: Use CO₂, powder or water spray to extinguish.
P501 Dispose of contents and container in accordance with local, regional, and national regulations.

Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3 Other hazards

Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

Determination of endocrine-disrupting properties Endocrine Disruptor substance ≥ 0.1% = none

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 65997-05-9	Rosin, polymerized	45–51%
CAS: 78-92-2 EINECS: 201-158-5 Index number: 603-127-00-5	butanol ⚠ Flam. Liq. 3, H226; ⚠ Eye Irrit. 2, H319; STOT SE 3, H335-H336	25–28%
CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5	ethanol ⚠ Flam. Liq. 2, H225	23–26%

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

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SECTION 4: First aid measures

4.1 Description of first aid measures

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.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

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)
by-products of pyrolysis of abietic resin acids

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

Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Avoid breathing the fumes or vapors.
Remove or keep away all sources of extreme heat or open flames.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.
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.

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· **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.
- Use only outdoors or in a well-ventilated area.
- For frequent or prolonged soldering processes, use of a local exhaust system to avoid exposure to thermal decomposition products. For example, use fume cabinet, a hood on a flexible arm, or tip-mounted fume extraction system on the soldering iron.

· **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 cool location.
 - Keep in a dry and clean area, away from incompatible substances
- **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.
 - Store locked up.

· **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:**

78-92-2 butanol	
WEL	Short-term value: 462 mg/m ³ , 150 ppm Long-term value: 308 mg/m ³ , 100 ppm
64-17-5 ethanol	
WEL	Long-term value: 1920 mg/m ³ , 1000 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** No further data; see section 7.
- **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.

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· **Respiratory protection:**

Advice should be sought from respiratory protection specialists.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

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**

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.



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:	Viscous
· Colour:	Amber coloured
· Odour:	Alcohol-like
· Odour threshold:	Not determined.
· Melting point/freezing point:	Undetermined.
· 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 Vol %
· Upper:	16 Vol %
· Flash point:	13 °C (64-17-5 ethanol)
· Auto-ignition temperature:	390 °C (78-92-2 butanol)
· Decomposition temperature:	Not determined.
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic:	Not determined.
· Solubility	
· water:	Partly miscible.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure at 20 °C:	42 hPa
· Vapour pressure at 50 °C:	280 hPa

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<ul style="list-style-type: none"> · Relative density at 25 °C: 0.93 · Vapour density (air=1): >1.5 · Particle characteristics: Not applicable.
<ul style="list-style-type: none"> · 9.2 Other information · Important information on protection of health and environment, and on safety. · Ignition temperature: Product is not selfigniting. · Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible. · Solvent content: · Organic solvents: 48–54 % · VOC (EC): 48–54 % · Solids content: 0.0 % · Evaporation rate: 1.9 (ButAc=1)
<ul style="list-style-type: none"> · Information with regard to physical hazard classes · Flammable liquids: Highly flammable liquid and vapour.

SECTION 10: Stability and reactivity

· 10.1 Reactivity

Polymerized rosin is oxidation resistant but may contain residual unmodified resin acids that can be auto-oxidize in contact with air and sunlight. Some slow auto-oxidation can also occur after long storage durations. The oxidation by-products may cause sensitization.

· 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 open flames, excessive heat, sparks, ignition sources, and incompatible substances.

· 10.5 Incompatible materials:

Strong oxidizing agents
Strong acids

· 10.6 Hazardous decomposition products:

Hazardous combustion products: see section 5.

Thermal degradation produces oxidized rosin by-products that are known skin and respiratory sensitizers.

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.

· LD/LC50 values relevant for classification:		
78-92-2 butanol		
Oral	LD50	6,480 mg/kg (rat)
64-17-5 ethanol		
Oral	LD50	7,060 mg/kg (rat)
Inhalative	LC50/4 h	20,000 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.

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- **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** May cause respiratory irritation. May cause drowsiness or dizziness.
- **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:**
 - watering
 - eye prickling
 - swelling
 - redness, serious irritation
 - **Skin:**
 - redness
 - dry skin
 - **Inhalation:**
 - irritation of the respiratory tract
 - cough
 - dizziness or drowsiness
 - sore throat
 - **Swallowed:**
 - irritation to the mouth, throat, esophagus, and stomach
 - see inhalation symptoms
- **Additional toxicological information:**
 - **Delayed and immediate effects as well as chronic effects from short and long-term exposure**
 - Prolonged or repeated exposure may defat skin and cause skin dryness and cracking, and local redness and discomfort.
 - Repeated or prolonged inhalation exposure to solder pyrolysis by-products may cause certain sensitive individuals to develop asthma and eczema symptoms.

· **11.2 Information on other hazards**

· Endocrine disrupting properties
None of the ingredients is listed.

SECTION 12: Ecological information

· **12.1 Toxicity**

· Aquatic toxicity:	
78-92-2 butanol	
EC50/ 48 h	2,300 mg/L (daphnia)
LC50 96h	3,670 mg/L (minnow)
64-17-5 ethanol	
LC50	>1,000 mg/L (fish) Biodegradable

· **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.

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· **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
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

· **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**

· **ADR, IMDG, IATA** UN1987

· **14.2 UN proper shipping name**

· **ADR, IMDG** ALCOHOLS, N.O.S. (ethanol, butanol)
· **IATA** Alcohols, n.o.s. (ethanol, butanol)

· **14.3 Transport hazard class(es)**

· **ADR, IMDG, IATA**



· **Class** 3 Flammable liquids.
· **Label** 3

· **14.4 Packing group**

· **ADR, IMDG, IATA** II

· **14.5 Environmental hazards:**

Not applicable.

· **14.6 Special precautions for user**

Not applicable.

· **Hazard identification number (Kemler code):** 33

· **EMS Number:** F-E,S-D

· **Stowage Category** B


· **14.7 Maritime transport in bulk according to IMO instruments**

Not applicable.

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<ul style="list-style-type: none"> · Transport/Additional information: 	
	Limited Quantity
835-100ML, 835-100MLCA, 835-1L	
<ul style="list-style-type: none"> · ADR 	
<ul style="list-style-type: none"> · Limited quantities (LQ) · Excepted quantities (EQ) 	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<ul style="list-style-type: none"> · Transport category · Tunnel restriction code 	2 D/E
<ul style="list-style-type: none"> · IMDG 	
<ul style="list-style-type: none"> · Limited quantities (LQ) · Excepted quantities (EQ) 	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<ul style="list-style-type: none"> · UN "Model Regulation": 	UN 1987 ALCOHOLS, N.O.S. (ETHANOL, BUTANOL), 3, II

SECTION 15: Regulatory information

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

Poisons Act

<ul style="list-style-type: none"> · Regulated explosives precursors (Part 1) 	None of the ingredients is listed.
<ul style="list-style-type: none"> · Regulated poisons (Part 2) 	None of the ingredients is listed.
<ul style="list-style-type: none"> · Reportable explosives precursors (Part 3) 	None of the ingredients is listed.
<ul style="list-style-type: none"> · 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

<ul style="list-style-type: none"> · 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.
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· **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.
- H226 Flammable liquid and vapour.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.

· **Classification according to Regulation (EC) No 1272/2008**

Flammable liquids	On basis of test data
Serious eye damage/irritation Specific target organ toxicity (single exposure)	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

· **Date of previous version:** 17.07.2024

· **Version number of previous version:** 8.00

· **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
- ATE: Acute toxicity estimate values
- Flam. Liq. 2: Flammable liquids – Category 2
- Flam. Liq. 3: Flammable liquids – Category 3
- 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.**