

ROSIN FLUX

835-LIQUID

Safety Data Sheet

Section 1: Product and Company Identification

Product Identifier and Other Means of Identification

Product Name: Rosin Flux**SDS Code:** 835-Liquid**Related Part #:** 835-P, 835-100ML, 835-1L, 835-4L

Recommended Use and Restriction on Use

Use: Activated rosin flux**Restriction on Use:** Not applicable

Details of Manufacturer or Importer

Manufacturer

MG Chemicals
1210 Corporate Drive
Burlington, Ontario L7L 5R6
CANADA

MG Chemicals (Head Office)
9347-193 Street
Surrey, British Columbia V4N 4E7
CANADA

☎ 1-800-340-0772**FAX** 1-800-340-0773**E-MAIL:** support@mgchemicals.com**WEB** www.mgchemicals.com**☎** 1-905-331-1396**FAX** 1-905-331-2682**E-MAIL:** info@mgchemicals.com**E-MAIL** (Competent Person): sds@mgchemicals.com

Emergency Phone Number



For hazardous material incidents ONLY—leaks, spills, fires, exposures or accidents
USA or CANADA: Call CHEMTREC ☎: **1-800-424-9300**

For emergencies involving dangerous goods; Collect 24/7
CANADA: Call CANUTEC ☎: **1-613-996-6666** or ***666** on cellular phones

ROSIN FLUX
835-LIQUID
Section 2: Hazards Identification
Classification of Hazardous Chemical
WHMIS Classification

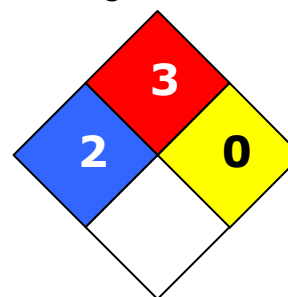

B2 – Flammable Liquid; D2B – Toxic Material (Eye Irritant; Skin sensitizer)

GHS Categories

Criteria	Category	Signal Word	Pictograms
Flammable liquid	2	Danger	
Sensitization Skin	1	Warning	
Eye irritation	2	Warning	
Specific Target Organ Toxicity Single Exposure	3	Warning	
Skin irritation	3	Warning	No Symbol Mandated

Other Classifications
HMIS® RATING



HEALTH:	2
FLAMMABILITY:	3
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	

NFPA® 704 CODES

Approximate HMIS and NFPA Risk Ratings Legend:

0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

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ROSIN FLUX**835-LIQUID****Label Elements**

Signal Word	DANGER
Pictograms	Hazard Statements
	H225: Highly flammable liquid and vapour
	H319: Causes serious eye irritation H317: May cause allergic skin reaction H335: May cause respiratory irritation H336: May cause drowsiness and dizziness (narcotic effect by inhalation)
No Pictograms Mandated	H316: Causes mild skin irritation EUH066: Repeated exposure may cause skin dryness and cracking
	Precautionary Statements
Prevention	P102: Keep out of reach of children. P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking. P233: Keep container tightly closed. P242 + P241 + P243: Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. P261 + P271: Avoid breathing fumes/vapors. Use only outdoors or in well ventilated area. P264: Wash hands thoroughly after handling P272: Contaminated clothing should not be allowed out of the workplace. P280: Wear protective gloves/eye protection/face protection.

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ROSIN FLUX**835-LIQUID**

	Precautionary Statements <i>(Continued)</i>
Response	<p>P370 + P378: In case of fire: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish.</p> <p>P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P303 + P361+ P364 +P352: IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash it before reuse. Wash with plenty of water/shower.</p> <p>P332 + P337+ P313: If eye or skin irritation occurs or persists: Get medical advice/attention.</p> <p>P304+ P340 + P312: IF INHALED: Remove person to fresh air (out of the contaminated zone) and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell or concerned.</p>
Storage	<p>P403 + P235: Store in well ventilated place. Keep cool.</p> <p>P405: Store locked up.</p>
Disposal	<p>P501: Dispose of contents/container in accordance to local/regional/national/international regulations.</p>

Other Hazards

When heated, rosin flux gives off fumes that can cause eye and respiratory irritation. Chronic exposure may lead to asthma or respiratory problems.

Frequent or prolonged skin contact may cause a skin rash (dermatitis)

Section 3: Hazardous Ingredients

CAS #	Chemical Name	Wt%
8050-09-7	Rosin ^{a)}	45%–51%
78-92-2	butan-2-ol	25%–28%
67-17-5	ethanol	23%–26%

a) Also called colophony, gum rosin

ROSIN FLUX**835-LIQUID****Section 4: First Aid Measures**

<i>Exposure Condition</i>	<i>GHS Code: Precautionary Statement</i>
IF IN EYES	P305
Symptoms	Immediate: <i>irritation, redness, watering, eye prickling, swelling</i>
Response	P351: Rinse cautiously with water for several minutes. P338: Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists	P310: Get medical advice/attention
IF ON SKIN (or hair)	P303
Symptoms	Immediate: <i>irritation, dry or itchy skin, skin rash (dermatitis), skin cracking</i>
Response	P361 + P364: Take off immediately all contaminated clothing and wash it before reuse. P352: Wash with plenty of water/shower.
If skin irritation or rash occurs	P310: Get medical advice/attention
IF INHALED	P304
Symptoms	Immediate: <i>irritation, runny or blocked nose, sore throat, drowsiness, dizziness, cough</i>
Response	P340: Remove person to fresh air (out of the contaminated zone) and keep comfortable for breathing.
If feeling unwell	P312: Call a POISON CENTRE/doctor
IF SWALLOWED	P301 (Not a likely route of exposure)
Symptoms	Immediate: <i>Irritation, burning sensation, nausea (also see inhalation symptoms)</i>
Response	P330: Rinse mouth. P331: Do NOT induce vomiting.
If feeling unwell	P312: Call a POISON CENTRE/doctor

ROSIN FLUX**835-LIQUID****Section 5: Fire Fighting Measures**

Auto-ignition Temperature	Not available	Flash Point ^{a)}	12 °C [54 °F]	LFL [LEL] ^{b)}	2.0% (v)
				UFL [UEL]	12.7% (v)

In case of fire	P370
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Response	P378: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish. Use water spray to cool containers.
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Combustion Products	Produces CO and CO ₂ .
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Fire-Fighter	Wear self-contained breathing apparatus for fire fighting
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General Information	Vapors may accumulate in low-lying areas. They can cause flash fire or ignite explosively. Material may float and ignite on surface of water.
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a) Closed cup value

b) LF[E]L = Lower Flammability [or Explosion] Limit (in volume %);

UF[E]L = Upper Flammability [or Explosion] Limit (in volume %)

Section 6: Accidental Release Measures**Personal Precautions, Equipment and Emergency Procedures**

Personal Protection	Avoid breathing the fumes/vapors.
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Protective Equipment	See Section 8.
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Emergency Actions	Remove all sources of ignition.
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Environmental Precautions

Emergency Action	Avoid release to the environment.
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Methods and Material for Containment and Cleanup

Cleaning	Collect liquid in a sealable, solvent-resistant container. Sprinkle inert absorbent compound onto spill, then sweep into the container. Wash spill area with water to remove the last traces of residue.
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Disposal	Dispose of spill waste according to Section 13.
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ROSIN FLUX**835-LIQUID****Section 7: Handling and Storage**

Prevention P102: Keep out of reach of children.

P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P242 + P241 + P243: Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge.

P261 + P271: Avoid breathing fumes/vapors. Use only outdoors or in well ventilated area.

P270: Do not eat, drink, or smoke when using this product.

P272: Contaminated clothing should not be allowed out of the workplace.

Handling P280: Wear protective gloves/clothing/eye protection.

RECOMMENDATION: Wear neoprene, butyl rubber, nitrile or other impervious gloves with breakthrough time greater than intended use period.

P264: Wash hands thoroughly after handling.

Storage P233 + P403 + P235: Keep container tightly closed. Store in a well-ventilated area. Keep cool.

RECOMMENDATION: Keep in a dry and clean area, away from incompatible substances.

ROSIN FLUX**835-LIQUID****Section 8: Exposure Controls/Personal Protection****Routes of Entry**

Inhalation, eyes, and skin

Substances with Occupational Exposure Limit Values

Chemical Name	Country	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)	Notation
		ppm	ppm	
rosin (colophony)	ACGIH Canada BC Canada ON Canada QC	Not established Not established Not established 0.1 mg/m ³	Not established Not established Not established Not established	Sensitizer, L ^{a)} Sensitizer, L ^{a)} L ^{a)}
butan-2-ol	ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada QC	100 (TWA) 150 100 100 100 100	Not established — Not established Not established 150 Not established	Irr ^{a)} , CNS ^{b)}
ethanol	ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada QC	1 000 1 000 1 000 Not established Not established 1 000	Not established Not established Not established 1 000 1 000 500	

Note: Ingredients are listed in descending weight contribution order (from greatest to least). The ACGIH¹, OSHA, and Canadian provinces exposure limits were consulted. Limits from by RTECS database² of the Canadian Centre for Occupational Health and Safety (CCOHS) a data from suppliers' SDS were also consulted. Short term exposure limits (STEL) are for 15 min and long term permissible exposure limits (PEL) for 8 h.

a) Exposure by all routes should be carefully controlled to levels as low as possible.

b) Eye and upper respiratory system irritant (Eye & URT irr); Central nervous system impairment (CNS impair)

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ROSIN FLUX**835-LIQUID****Engineering Controls****Ventilation**

Keep airborne concentrations below exposure limits.

RECOMMENDATION: For frequent or prolonged soldering processes, we recommend the use of a local exhaust system. For example, use a hood on a flexible arm, fume cabinet, or tip-mounted fume extraction system on the soldering iron.

Personal Protective Equipment**Eye protection**

Wear appropriate protective eyeglasses or chemical safety goggles.

RECOMMENDATION: Use safety glasses with lateral protection (side shields).

Skin Protection

Wear appropriate protective clothing to prevent skin contact.

RECOMMENDATION: Use of protective gloves in neoprene, butyl rubber, nitrile or other chemically resistant gloves.

Respiratory Protection

If exposed to high levels of mist/vapors/fumes, wear respirator such as a half-mask respirator.

RECOMMENDATION: Consult your local safety supply store to ensure your respirator has filter cartridges appropriate for the ingredients listed in section 3 of this MSDS, and that the respirator is fitted to the employee by a professional. Ensure vapor cartridges are stored in sealed plastic bags when not being used.

General Hygiene Considerations

Wash hands thoroughly with water and soap after handling.

ROSIN FLUX**835-LIQUID****Section 9: Physical and Chemical Properties**

Physical State	Liquid	Appearance	Light amber
Odor	Mild alcohol	Odor Threshold	Not available
pH	Not available	Specific Gravity	0.93
Solubility in Water	Partially miscible	Freezing/Melting Point	12 °C [53 °F]
Flash Point ^{a)}	12 °C [53 °F]	Vapor Pressure ^{b)} @ 20 °C	5.3 kPa [40 mmHg]
Boiling Point	≥78 °C [≥174 °F]	Evaporation Rate	1.9 (ButAc = 1)
Lower Flammability Limit ^{b)}	3%	Upper Flammability Limit ^{b)}	19%
Auto-ignition Temperature	Not available	Decomposition Temperature	Not available
Viscosity @40 °C	Not available	Vapor Density	>1.6 (Air =1)
Partition Coefficient	Not available	VOC	50% [456 g/L]

a) Closed cup

b) Calculated from components using Raoult's Law and Le Chatelier's principle

Section 10: Stability and Reactivity

Chemical Stability	Chemically stable at normal temperatures and pressures
Conditions to Avoid	Ignition sources, excessive heat, and incompatible substances. Vapors may form explosive mixture with air.
Incompatibilities	Strong oxidizing agents, strong acids
Polymerization	Will not occur
Decomposition	Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5

ROSIN FLUX**835-LIQUID****Section 11: Toxicological Information****Routes of Entry**

Eyes, ingestion, inhalation, and skin

Symptoms Summary

Eyes	Causes severe eye irritation. Also cause eye redness or pain.
Skin	May cause dry skin.
Inhalation	Inhalation of vapors or mist may cause irritation to the nose, throat and lung (upper respiratory tract). The vapors may cause effects on the central nervous system leading to dizziness or drowsiness.
Ingestion	Irritation, burning sensation, nausea (<i>also see inhalation symptoms</i>)
Chronic	Repeated or prolonged inhalation exposure may cause asthma. Repeated or prolonged skin contact may cause allergic skin reaction.

Acute Toxicity (Lethal Exposure Concentrations)

Chemical Name	LD50 oral	LD50 dermal	LC50 inhalation	TCLo inhalation
rosin	7 600 mg/kg Rat	Not established	20 000 ppm 10 h Rat	Not established
butan-2-ol	2 193 mg/kg Rat	>2,000 mg/kg Rabbit	8,000 ppm 4h Rat	11,800 ppm 10 mo. Mouse
ethanol	7 060 mg/kg Rat	48 500 mg/kg Rabbit	>2 g/kg Rat	5 000 ppm 7h Rat

Note: Representative toxicity data from by RTECS database of the Canadian Centre for Occupational Health and Safety (CCOHS)² data from supplier MSDS were also consulted.

Skin corrosion/irritation	Causes mild skin irritation based on Draize tests on rabbits. Prolonged or repeated skin contact may cause dermatitis
Serious eye damage/irritation	Causes moderate to severe eye irritation based on Draize tests on rabbits
Sensitization (allergic reactions)	Rosin may cause skin sensitization. If inhalation causes asthma, further contact with the substance should be avoided.

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ROSIN FLUX**835-LIQUID**

Carcinogenicity (risk of cancer)	Not classified or listed as a carcinogen by IARC, ACGIH, CA Prop 65, or NTP
Mutagenicity (risk of heritable genetic effects)	No data available
Reproductive Toxicity (risk to sex functions)	No data available
Teratogenicity (risk of fetus malformation)	No data available
STOT-single exposure	Butan-2-ol can affect the central nervous system by inhalation causing drowsiness or dizziness. Inhalation also cause respiratory irritation.
STOT-repeated exposure	Not applicable
Aspiration hazard	None of the ingredient are classified as a aspiration hazard

Section 12: Ecological Information

The IMDG Code criteria and the raw-material MSDS along with supporting data for the classification of registered substances from the European Chemical Agency database (<http://echa.europa.eu>) were used.

The mixture is not classifiable as a environmental toxicants.

Acute Ecotoxicity

Available toxicity data does not meet classification thresholds

Chronic Ecotoxicity

Not data available

Biodegradability

Not data available

Other Effects

VOC (Regulated Volatile Organic Content) = 50% [456 g/L]

Section 13: Disposal Information

P501: Dispose of contents in accordance with all local, regional, national, and international regulations.

ROSIN FLUX**835-LIQUID****Section 14: Transport Information****Ground**

Refer to TDG regulations (Canadian Transportation of Dangerous Goods regulations);
USA CFR 49 Regulations (Parts 100 to 185). **ADR** (European Agreement Concerning the International Carriage of Dangerous Goods by Road, and **ADN** (Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways).

Sizes 1 liter and under

Limited Quantity

Sizes greater than 1 liter

UN number: UN1987

Shipping Name: ALCOHOLS, N.O.S. (Ethanol, Butan-2-ol)

Class: 3

Packing Group: II

Marine Pollutant: No

**Air**

Refer to ICAO-IATA Dangerous Goods Regulations.

All sizes

UN number: UN1987

Shipping Name: ALCOHOLS, N.O.S. (Ethanol, Butan-2-ol)

Class: 3

Packing Group: II

Marine Pollutant: No



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ROSIN FLUX**835-LIQUID****Sea**

Refer to IMDG regulations.

Sizes 1 liter and under

Limited Quantity



Sizes greater than 1 liter

UN number: UN1987

Shipping Name: ALCOHOLS, N.O.S. (Ethanol, Butan-2-ol)

Class: 3

Packing Group: II

Marine Pollutant: No



Note: Component supplier SDS transportation sections and labeling were consulted.

All Transportation Modes

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Codes

Not applicable

Other Information

All involved staff of shipper must be appropriately trained before involvement with the transport of this product, or work under direct supervision of a trained person.

Section 15: Regulatory Information**Canada****Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)**

All hazardous ingredients are listed on the DSL/NDSL.

Industry and Science Canada

MG Labels products intended for the workplace to conform to WHMIS labeling regulations. Product identification, net quantity declaration, minimum printing type size heights, and packaging of this product are in compliance.

Health Canada

Products produced by MG Chemicals intended for retail display conform to the Canadian Consumer Labeling Regulations.

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ROSIN FLUX**835-LIQUID****USA****CAA** (Clean Air Act, USA)

This product does not contain any class 1 ozone depleting substances.

This product does not contain any class 2 ozone depleting substances.

This product does not contain substances that are listed as hazardous air pollutants.

EPCRA (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product contains up to 28% butan-2-ol (CAS # 78-92-1) which is subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

TSCA (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

California Proposition 65 (Chemicals known to cause cancer or reproductive toxicity, Sept 2, 2011 revision, USA).

This product contains ethanol, which is listed as reproductively toxic. It is also listed as a carcinogen when in an alcoholic beverage.

Europe**RoHS**

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, or PBDE's, and complies with European RoHS regulations.

WEEE

This product is not a piece of electrical or electronics equipment, and is therefore not governed by this regulation.

Section 16: Other Information

MSDS Prepared by	Michel Hachey
Date of Issue	19 August 2013
Supersedes	30 October 2012
Reason for Changes:	Change to GHS format

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ROSIN FLUX**835-LIQUID****Reference**

- 1) ACGIH 2011 TLVs and BEIs: Based on the documentation of the threshold limit values for chemical substances and physical agents & biological exposure indices, American Conference of Governmental of Industrial Hygienist Cincinnati, OH (2011).
- 2) All toxicological data were checked against the RTECS (Registry of Toxic Effects of Chemical Substances®)

Abbreviations

ACGIH American Conference of Governmental Industrial Hygienists
GHS: Globally Harmonized System of Classification of Labeling of Chemicals
LC50 Lethal Concentration 50%
LCLo Lowest published lethal concentration
LD50 Lethal Dose 50%
PEL Permissible Exposure Limit
STEL Short-Term Exposure Limit
TCLo Lowest published toxic concentration
TWA Time Weighted Average
VOC Volatile Organic Content

Technical Queries Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at www.mgchemicals.com.

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