

8341

**NO CLEAN FLUX PASTE**

# Safety Data Sheet

## Section 1: Identification

### Product Identifier and Other Means of Identification

**Product Name:** 8341**Other Means of Identification:** No Clean Flux Paste**Related Part #** 8341-10ML, 8341-10MLCA, 8341B-10ML

### Recommended Use and Restriction on Use

**Use:** No clean flux paste**Uses Advised Against:** Not available

### 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

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### Emergency Phone Number

**For hazardous material incidents ONLY** (leaks, spills, fires, exposures or accidents)USA or CANADA—Call Verisk 3E at **+1-866-519-4752** or **+1-760-476-3962**

(Service access code: 335388)



**For emergencies involving the transport of dangerous goods;** 24/7 serviceCANADA—Call CANUTEC collect at **+1-613-996-6666** or **\*666** on cellular phones

**8341**
**NO CLEAN FLUX PASTE**
**Section 2: Hazard(s) Identification**
**Classification of the Hazardous Material**
**GHS Categories**

Criteria		Category	Signal Word	Pictograms
Sensitization	Respiratory	1	Danger	Health
Sensitization	Skin	1	Warning	Exclamation
Eye Irritation		2A	Warning	Exclamation

*Note:* The degree of severity is ranked within each hazard class from 1 (Highest Severity) to up to 5 (Lowest Severity), which is opposite to HMIS and NFPA conventions. Severity category rankings do not allow comparisons between classes.

**Label Elements**

<b>Signal Word</b>	<b>DANGER</b>
<b>Pictograms</b>	<b>Hazard Statements</b>
	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled H317: May cause an allergic skin reaction
	H319: Causes serious eye irritation
<b>Prevention</b>	<b>Precautionary Statements</b>
P102	Keep out of reach of children.
P261	Avoid breathing vapors or fumes.
P284	In case of inadequate ventilation, wear respiratory protection.
P280	Wear protective gloves and eye protection.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed of the workplace.

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**8341**
***NO CLEAN FLUX PASTE***
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<b>Response</b>	<b>Precautionary Statements</b>
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
P302 + P352	IF ON SKIN: Wash with plenty of water.
P333 + P313	If skin irritation or rash occurs: Get medical advice or attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice or attention.
<b>Disposal</b>	<b>Precautionary Statements</b>
P501	Dispose of contents and container in accordance to local, regional, national, and international regulations.

### Hazards Not Otherwise Classified

<b>Other Criteria</b>	<b>Hazard Statements/Precautionary Statement</b>	<b>Signal Word</b>	<b>Pictograms</b>
Rosin Solder Fumes	Rosin-based solder fumes are capable of causing occupational asthma.	Warning	None

### Section 3: Composition/Information on Ingredients

<b>CAS #</b>	<b>Chemical Name</b>	<b>%(weight)</b>
8050-09-7	rosin	42%
124-04-9	adipic acid	9%
95-14-7	benzotriazole	1%

**8341**
**NO CLEAN FLUX PASTE**
**Section 4: First-Aid Measures**

<i>Exposure Condition</i>	<i>GHS Code: Precautionary Statement</i>
<b>IF INHALED</b>	P304 + P340, P342 + P311
<b>Immediate Symptoms</b>	<i>IF exposed to solder fumes: coughing, sore throat, wheezing, difficulty breathing</i>
<b>Response</b>	Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
<b>IF ON SKIN</b>	P302 + P352, P333 + P313, P362 + P364
<b>Immediate Symptoms</b>	<i>redness, mild irritation, rash, allergic dermatitis</i>
<b>Response</b>	Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse.
<b>IF IN EYES</b>	P305 + P351 + P338, P337 + P313
<b>Immediate Symptoms</b>	<i>serious irritation</i>
<b>Response</b>	Rinse cautiously with water for at least 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.
<b>IF SWALLOWED</b>	P301 + P330, P331
<b>Immediate Symptoms</b>	<i>Low toxicity—nausea, sore throat, diarrhea, dizziness, drowsiness</i>
<b>Response</b>	Rinse mouth. Do not induce vomiting.

**Section 5: Fire-Fighting Measures**

<b>Extinguishing Media</b>	In case of fire: Use extinguishing media suitable for surrounding materials. In presence of molten metal, do NOT use water on fire.
<b>Specific Hazards</b>	Not flammable or combustible, but burns if involved in a fire. In a fire, this product can release metal oxide fumes and irritating flux fumes.
<b>Combustion Products</b>	Produces carbon oxides (CO, CO <sub>2</sub> ), rosin solder pyrolysis products and nitrogen oxides (NO <sub>x</sub> ).
<b>Fire-Fighter</b>	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

8341

***NO CLEAN FLUX PASTE*****Section 6: Accidental Release Measures**

<b>Personal Protection</b>	Use personal protection recommended in Section 8.
<b>Precautions for Response</b>	Avoid breathing vapors or fumes.
<b>Environmental Precautions</b>	Avoid releasing to the environment.
<b>Containment Methods</b>	Not applicable—not readily flowable
<b>Cleaning Methods</b>	Collect paste in a sealable, solvent-resistant container. Wipe up residues with paper towel and place dirty towels in container. Wash spill area with soap and water to remove the last traces of residue.
<b>Disposal Methods</b>	Dispose spill waste according to Section 13.

**Section 7: Handling and Storage**

<b>Prevention</b>	Keep out of reach of children. Avoid breathing fumes or vapors. In case of inadequate ventilation, wear respiratory protection.
<b>Handling</b>	Wear protective gloves protection. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed of the workplace.
<b>Storage</b>	Not applicable

**Section 8: Exposure Controls/Personal Protection**
**Substances with Occupational Exposure Limit Values**

Chemical Name	Country	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)
rosin, colophony ( <i>thermal decomposition</i> )	ACGIH	L, S	Not established
	U.S.A. OSHA PEL	Not established	Not established
	Canada AB	Not established	Not established
	Canada BC	L, S	Not established
	Canada ON	L	Not established
	Canada QC	0.1 mg/m <sup>3</sup>	Not established
adipic acid	ACGIH <sup>a)</sup>	5 mg/m <sup>3</sup>	Not established
	U.S.A. OSHA PEL	Not established	Not established
	Canada AB	5 mg/m <sup>3</sup>	Not established
	Canada BC	5 mg/m <sup>3</sup>	Not established
	Canada ON	5 mg/m <sup>3</sup>	Not established
	Canada QC	Not established	Not established

*Note:* The ACGIH<sup>1</sup>, OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from the RTECS<sup>2</sup> database and 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.

(L)—Exposure by all routes should be carefully controlled to levels as low as possible.

(S)—Sensitizer

a) URT irr (Upper Respiratory Track Irritant); CNS impair

**Engineering Controls**
**Ventilation**

Keep airborne concentrations below the occupational exposure limits (OEL). Keep overall exposure as low as possible.

Soft soldering temperatures (<450 °C) are generally too low to generate significant amounts of metal vapors; however, metal oxide fumes or dust or flux decomposition fumes can occur. The volatilization and degradation of the rosin flux during soldering may lead to respiratory sensitization.

**RECOMMENDATION:** For frequent or prolonged soldering processes, use of a local exhaust system to avoid exposure to thermal decomposition products.

*Section continued on the next page*

8341

***NO CLEAN FLUX PASTE*****Personal Protective Equipment****Eye protection**

Wear appropriate protective eyeglasses or chemical safety goggles.

**RECOMMENDATION:** Ensure that glasses have side shields for lateral protection.

**Skin Protection**

For likely contacts, use of protective nitrile gloves or other chemically resistant gloves.

Thermal resistant gloves should be worn instead if contact with molten metal is expected.

**Respiratory Protection**

For over-exposures up to 10 x OEL of vapors or fumes, wear respirator such as a half-mask respirator with organic vapor cartridges and particulate filter.

Above 10 x OEL, use a positive-pressure, air-supplied respirator or a self-contained breathing apparatus.

**RECOMMENDATION:** Consult your local safety supply store to ensure that your respirator has a NIOSH (U.S.) approved filter cartridges appropriate for the ingredients listed in Section 3. The respirator should be 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.

**8341**
***No CLEAN FLUX PASTE***
**Section 9: Physical and Chemical Properties**

<b>Physical State</b>	Solid	<b>Lower Flammability Limit</b>	Not available
<b>Appearance</b>	Yellow paste	<b>Upper Flammability Limit</b>	Not available
<b>Odor</b>	Mild	<b>Vapor Pressure @20 °C</b>	Not available
<b>Odor Threshold</b>	Not available	<b>Vapor Density</b>	Not available
<b>pH</b>	Not available	<b>Relative Density @25 °C</b>	1.0
<b>Freezing/Melting Point</b>	Not available	<b>Solubility in Water</b>	Not available
<b>Initial Boiling Point</b>	Not available	<b>Partition Coefficient n-octanol/water</b>	Not available
<b>Flash Point</b>	Not available	<b>Auto-ignition Temperature</b>	Not available
<b>Evaporation Rate</b>	Not available	<b>Decomposition Temperature</b>	Not available
<b>Flammability</b>	Not available	<b>Viscosity @40 °C</b>	Not available

**Section 10: Stability and Reactivity**

<b>Reactivity</b>	Rosin forms oxidized pyrolysis products in contact with air and soldering temperatures (350-400 °C), which may lead to respiratory sensitization. Skin sensitization may occur following oxidation of the chemicals after prolonged storage.
<b>Chemical Stability</b>	Chemically stable at normal temperatures and pressures
<b>Conditions to Avoid</b>	Ignition sources, excessive heat, and incompatible substances
<b>Incompatibilities</b>	Strong oxidizing agents
<b>Polymerization</b>	Will not occur
<b>Decomposition</b>	Thermal degradation produces oxidized rosin by-products that are known skin and respiratory sensitizers.  Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5.



**Section 11: Toxicological Information**
**Summary of Effects and Symptoms by Routes of Exposure**

<b>Eyes</b>	Causes redness and serious irritation.
<b>Skin</b>	May cause redness, rash, mild irritation, and allergic dermatitis.
<b>Inhalation</b>	Exposure to the rosin flux fumes may cause coughing, sore throat and wheezing.
<b>Ingestion</b>	Low toxicity—abdominal pain, nausea, and vomiting
<b>Chronic</b>	Prolonged or repeated exposure to the oxidized rosin flux may lead to skin sensitization and provoke asthma.

**Acute Toxicity (Lethal Exposure Concentrations)**

<b>Chemical Name</b>	<b>LD50 oral</b>	<b>LD50 dermal</b>	<b>LC50 inhalation</b>
rosin	7 600 mg/kg Rat	>2 000 mg/kg Rat	Not available
adipic acid	5 560 mg/kg Rat	7 940 mL/kg Rabbit	>7.7 mg/L 4 h Rat (mist)
benzotriazole	500 mg/kg Rat	Not available	Not available
ATE Mixture	>5 000 mg/kg	>3 783 mg/kg	>5 mg/L (mist)

*Note:* Toxicity data from the RTECS<sup>2</sup> and ECHA databases were consulted. The data from supplier SDS were also consulted.

**Other Toxicological Effects**

<b>Skin corrosion/irritation</b>	Based on available data, the classification criteria are not met.
<b>Serious eye damage/irritation</b>	Adipic acid and benzotriazole cause serious eyes irritation.
<b>Respiratory and skin sensitization</b> (allergic reactions)	Under normal soldering temperatures, rosin produces oxidation by-products that are known respiratory and skin sensitizers. Inhalation of rosin soldering fumes is a recognized cause of occupational asthma.
<b>Carcinogenicity</b> (risk of cancer)	Not classified or listed as a carcinogen by IARC, ACGIH, CA Prop 65, or NTP.

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**8341*****NO CLEAN FLUX PASTE***

<b>Mutagenicity</b> (risk of heritable genetic effects)	Based on available data, the classification criteria are not met.
<b>Reproductive Toxicity</b> (risk to sex functions)	Based on available data, the classification criteria are not met.
<b>Teratogenicity</b> (risk of fetus malformation)	Based on available data, the classification criteria are not met.
<b>STOT-single exposure</b>	Based on available data, the classification criteria are not met.
<b>STOT-repeated exposure</b>	Based on available data, the classification criteria are not met.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.

## Section 12: Ecological Information

Ecological classifications are based on the IMDG/GHS criteria in conjunction with ecotoxicological data from our suppliers, the European Chemical Agency database (<http://echa.europa.eu>), and other reliable sources.

Benzotriazole is classified as a category 2 aquatic chronic environmental hazard.

Based on available data for rosin and adipic acid, the GHS environmental toxicity classification criteria are not met.

### **Acute Ecotoxicity**

Available toxicity data does not meet classification thresholds.

### **Chronic Ecotoxicity**

Available toxicity data does not meet classification thresholds.

### **Biodegradability**

Not available

### **Other Effects**

Not available

**8341****NO CLEAN FLUX PASTE****Section 13: Disposal Considerations**

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

**Section 14: Transport Information****Ground**

**Refer to TDG regulations** (Canadian Transportation of Dangerous Goods regulations); **USA DOT 49 CFR** (Parts 100 to 185) **Regulations.**

Not regulated

**Air**

**Refer to ICAO-IATA Dangerous Goods Regulations.**

Not regulated

**Sea**

**Refer to IMDG Regulations.**

Not regulated

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

All hazardous ingredients are listed on the DSL/NDSL.

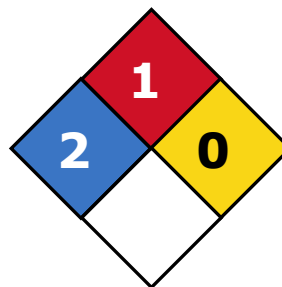
**Hazardous Products Act (R.S.C., 1985, c. H-3)**

The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2015.

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**8341****NO CLEAN FLUX PASTE****USA****Other Classifications****HMIS® RATING**

<b>HEALTH:</b>	<b>2</b>
<b>FLAMMABILITY:</b>	<b>1</b>
<b>PHYSICAL HAZARD:</b>	<b>0</b>
<b>PERSONAL PROTECTION:</b>	

**NFPA® 704 CODES**

*Approximate HMIS and NFPA Risk Ratings Legend:*

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

**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 does not contain ingredients that 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, USA)

This product does not contain any substances known to be listed in California.

**Europe****RoHS** (Restriction of Hazardous Substances Directive)

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

**WEEE** (Waste Electrical and Electronic Equipment Directive)

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

**8341****NO CLEAN FLUX PASTE****Section 16: Other Information****Prepared by the** Regulatory Affairs Department**Date of Creation** 03 March 2020**Supersedes** 25 April 2018**Reason for Changes:** Change of emergency phone numbers and of pictograms.**Reference**

1) ACGIH 2017 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 (2017).

2) All toxicological data were checked against the RTECS (Registry of Toxic Effects of Chemical Substances®)

**Abbreviations**

ACGIH	American Conference of Governmental Industrial Hygienists (USA)
ATE	Acute Toxicity Estimate
EC50	Half maximal effective concentration
EL50	Half maximal effective loading
NOELR	No observable effect loading ratio
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

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**8341**

***NO CLEAN FLUX PASTE***

**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](http://www.mgchemicals.com).

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