

# CHEMTRONICS®

## Technical Data Sheet

**TDS # 1035**

### Flux-Off® Rosin

#### PRODUCT DESCRIPTION

Flux-Off® Rosin is a fast drying aerosol that quickly and completely removes R, RMA, RA, and synthetic flux residue. With its low surface tension and superior wetting properties, Flux-Off® Rosin removes harmful residues in tight tolerance areas.

- Removes R, RMA, RA, and synthetic flux residues
- Penetrates hard to reach areas
- Evaporates quickly
- Leaves no residue
- Removes oil, grease, ionic and non-ionic residues
- Has low odor
- Non-corrosive formulation
- Contains no CFCs or HCFCs
- Contains no 1,1,1 Trichloroethane

#### TYPICAL APPLICATIONS

Flux-Off® Rosin removes flux residues and cleans:

- Chip Carriers
- Heat Sinks
- Plugs
- Printed Circuit Boards
- Relays
- Sockets
- Surface Mount Device Pads
- Switches

#### TYPICAL PRODUCT DATA AND PHYSICAL PROPERTIES

<b>Boiling Point</b>	141°F Initial
<b>Vapor Density (air=1)</b>	>1
<b>Solubility in Water</b>	20%
<b>Specific Gravity (water = 1@77°F)</b>	0.70
<b>Evaporation Rate (butyl acetate=1)</b>	>1
<b>Appearance</b>	Clear, Colorless Liquid
<b>Odor</b>	Ethereal
<b>Surface Tension (dynes/cm @21.6°C)</b>	17.3
<b>Flash Point (TCC)</b>	-20.0°F
<b>Kauri-Butanol (KB) Number</b>	50

#### COMPATIBILITY

Flux-Off® Rosin is generally compatible with most materials used in the electronics industry. With any cleaning agent compatibility solvent/component must be determined on a non-critical area prior to use.

<b>Material</b>	<b>Compatibility</b>
ABS	Good
Buna-N	Good
EPDM	Poor
Graphite	Excellent
HDPE	Excellent
Kynar™	Fair
LDPE	Fair
Lexan™	Fair
Neoprene	Non-Compatible
Noryl®	Good
Nylon™ 66	Excellent
Cross-Linked PE	Excellent
Polypropylene	Good
Polystyrene	Non-Compatible
PVC	Good
Silicone Rubber	Non-Compatible
Teflon™	Excellent
Viton™	Excellent

<b>Performance</b>	
<b>Product Required for Rosin Removal (mg solvent/ 1 mg rosin flux)</b>	
Flux-Off Rosin	<b>101</b>
Conventional Flux Remover	<b>3673</b>
<b>Rosin Remval Rate (mg / in<sup>2</sup> sec.)</b>	
Flux-Off Rosin	<b>4.0</b>
Conventional Flux Remover	<b>0.3</b>

## USAGE INSTRUCTIONS

For industrial use only.

Read MSDS carefully prior to use.

Spray 4-6" from surface to clean. Wash parts from top to bottom, allowing the liquid to flush away dirt and dissolved grease. For precise application use attached extension tube. Product is Extremely Flammable - Do not use near sources of ignition and energized equipment.

## AVAILABILITY

ES1035	10.0 oz. Aerosol	ES135	1 Gal. Liq.
ES535	5 Gal. Liquid	ES5535	55 Gal. Liq.
ES835B	5.0 oz. BrushClean System		
ES1035B	10.0 oz. Brush Clean System		

## TECHNICAL & APPLICATION ASSISTANCE

Chemtronics® provides a technical hotline to answer your technical and application related questions. The toll free number is:

**1-800-TECH-401.**

## ENVIRONMENTAL IMPACT DATA

<b>ENVIRONMENTAL IMPACT DATA</b>			
CFC	0.0%	VOC	95.7%
HCFC	0.0%	HFC	0.0%
CL Solv.	0.0%	ODP	0.0

CFC, HCFC, CL. SOLV., VOC, and HFC numbers shown are the content by weight. Ozone depletion potential (ODP) is determined in accordance with the Montreal Protocol and U.S. Clean Air Act of 1990. The ODP of this product is 0.0. It is the sum of the ODP of the substances that may contribute to the depletion of stratospheric ozone, based upon the weight of each substance in the product's formulation.

**NOTE:** This information is believed to be accurate. It is intended for professional end users having the skills to evaluate and use the data properly. CHEMTRONICS® does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.

## MANUFACTURED BY:

CHEMTRONICS INC.

8125 COBB CENTER DRIVE

KENNESAW, GA 30152

1-770-424-4888

REV. D (11/97)

## DISTRIBUTED BY:

**TECHNICAL HOT LINE 1-800-TECH-401**

# Material Safety Data Sheet

## Flex Off Rosin

ES135 1.00 US EA 05.06.2000 MSDS\_Europe

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Code**

ES135

**Product Type**

Preparation

**Trade Name**

Flex Off Rosin

**Product Numbers**

ES1035E

**Manufacturer/Supplier**

ITW-Chemtronics

**Address**

Rocol House  
Swillington Leeds  
LS26 8BS  
United Kingd

**Phone Number**

+44 (0) 1132322625

**Chemtrec Number**

In USA call (800) 424-9300 International Call collect 703-527-3887

**MSDS data revised**

### 2. COMPOSITION/INFORMATION ON THE COMPONENTS

**Hazardous Components in Product for EC**

Component Name	Codes	Concentration	R Phrases	Classification
ETHANOL	000064-17-5 200-578-6	15.00 -25.00%	R11	F
ISOPROPYL ALCOHOL	000067-63-0 200-661-7	10.00 -25.00%	R11	F
ISOHEXANE	064742-49-0 203-523-4	60.00 -80.00%	R11	F
R11	R11 Highly flammable.			
F	F - Highly flammable			

### 3. HAZARD IDENTIFICATION

**Main Hazards**

Extremely flammable.

**Health Effects - Eyes**

Liquid may cause slight transient irritation.

**Health Effects - Skin**

Repeated or prolonged contact may produce defatting of the skin leading to irritation and dermatitis.

**Health Effects - Ingestion**

Swallowing may have the following effects:

- nausea - drowsiness

# Material Safety Data Sheet

## Flex Off Rosin

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### 3. HAZARD IDENTIFICATION

#### Health Effects - Inhalation

Exposure to vapor at high concentrations may have the following effects:

- drowsiness

### 4. FIRST AID MEASURES

#### First Aid - Eyes

Wash out eye with plenty of water. Obtain medical attention if soreness or redness persists.

#### First Aid - Skin

Wash skin with soap and water.

#### First Aid - Ingestion

Do not induce vomiting. Obtain medical attention.

#### First Aid - Inhalation

Remove from exposure.

### 5. FIRE FIGHTING MEASURES

#### Extinguishing Media

Keep containers and surroundings cool with water spray. Use foam, dry chemical or carbon dioxide.

#### Unusual Fire and Explosion Hazards

Containers may explode in heat of fire. This product may give rise to hazardous fumes in a fire.

#### Protective Equipment for Fire-Fighting

Wear self contained breathing apparatus.

### 6. ACCIDENTAL RELEASE MEASURES

#### Spill Procedures

Allow to evaporate if it is safe to do so or contain and absorb using earth, sand or other inert material. Transfer into suitable containers for recovery or disposal.

#### Personal Precautions

Eliminate all sources of ignition.

#### Environmental Precautions

Prevent the material from entering drains or water courses.

### 7. HANDLING AND STORAGE

#### Handling

Use in well ventilated area.

#### Storage

Storage temperature should be kept below 50 °C.

Storage area should be: - out of direct sunlight

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Occupational Exposure Standards

##### ETHANOL

UK EH40: OES 1000ppm (1920mg/m<sup>3</sup>) 8h TWA.

FRG: MAK 1000ppm (1900mg/m<sup>3</sup>) 8h TWA.

Peak limitation category IV

MAK Pregnancy group 0.

OSHA: PEL 1000ppm (1880mg/m<sup>3</sup>) 8h TWA.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### ISOPROPYL ALCOHOL

A4 - not classifiable as a human carcinogen.

UK EH40: OES 400ppm 8h TWA.

UK EH40: OES 500ppm 10min TWA.

#### ISOHEXANE

An exposure limit of 500ppm (1800mg/m<sup>3</sup>) 8h TWA is recommended.

#### Engineering Control Measures

Exposure to this material may be controlled in a number of ways. The measures appropriate for a particular worksite depend on how the material is used and on the potential for exposure. Use of the basic principles of Industrial Hygiene will enable this material to be used safely.

#### Respiratory Protection

Respiratory protection if there is a risk of exposure to high vapor concentrations.

#### Hand Protection

Chemical resistant gloves

#### Eye Protection

Chemical goggles if there is a risk of splashing.

#### Body Protection

Normal work wear.

#### Protection During Application

During application, adequate ventilation must be provided.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Physical State

Liquid

#### Colour

Almost colorless

#### Odour

Characteristic

#### Boiling Range/Point (°C/F)

Boils above 90.

#### Explosion Limits (%)

Not determined.

#### Density

0.6. (measured as kg/litre)

#### Solubility in Water

Insoluble

#### Vapour Density (Air=1)

Heavier than air.

### 10. STABILITY AND REACTIVITY

#### Stability

Stable under normal conditions.

#### Conditions to Avoid

- Temperatures in excess of 50 °C - Exposure to direct sunlight

#### Materials to Avoid

- Strong oxidizing agents

#### Hazardous Decomposition Products

Combustion will generate: - smoke, possibly thick and choking, resulting in zero visibility

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### 11. TOXICOLOGICAL INFORMATION

#### Acute Toxicity

Low order of acute toxicity.

### 12. ECOLOGICAL INFORMATION

#### Mobility

The product is volatile/gaseous and will partition to the air phase. If released to water the product will float.

#### Persistence/Degradability

The product is expected to be resistant to biodegradation.

#### Bio-accumulation

Product is not expected to bioaccumulate.

### 13. DISPOSAL

#### Container Disposal

Do not incinerate closed containers.

### 14. TRANSPORT INFORMATION

#### UN Class

2.1

#### UN Number

1950

#### UN Packaging Group

II

#### IATA - Proper Shipping Name

The specific IATA Proper Shipping Name is not available.

#### IATA - Class

2.1

#### IATA - Packaging Group

II

### 15. REGULATORY INFORMATION

#### Labelling Information



Highly  
flammable

#### R Phrases

R11 Highly flammable.

#### S phrases

S16 Keep away from sources of ignition - No Smoking. S7 Keep container tightly closed. S51 Use only in well ventilated areas. S23 Do not breathe gas/fumes/vapor/spray. S2 Keep out of reach of children.

### 16. OTHER INFORMATION