



# FLEXRICIN® P-1

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
SDS ID: RUC093  
Issue date: 3/10/2011 Revision date: 1/21/2022 Supersedes: 3/10/2011 Version: 4.0

### SECTION 1: Identification

#### 1.1. Identification

Product form : Substance  
Substance name : FLEXRICIN® P-1  
Product code : 014020700  
Synonyms : Methyl ricinoleate / Castor oil acid, methyl ester

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : Lubricating agent  
Restrictions on use : None

#### 1.3. Supplier

Aurorium  
201 North Illinois Street  
Suite 1800  
Indianapolis, IN, 46204  
USA  
T +1-317-247-8141  
[SDS@aurorium.com](mailto:SDS@aurorium.com) - [www.aurorium.com](http://www.aurorium.com)

#### 1.4. Emergency telephone number

Emergency number : Aurorium : +1-317-247-8141  
CHEMTREC (USA): +1-800-424-9300 (24 hours)  
CHEMTREC (International): +1-703-527-3887 (24 hours)

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Not classified

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

No labeling applicable

#### 2.3. Other hazards which do not result in classification

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Name : FLEXRICIN® P-1

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Name	Product identifier	%	GHS US classification
9-Octadecenoic acid, 12-hydroxy-, methyl ester, [R-(Z)]-	CAS-No.: 141-24-2	100	Not classified

Full text of hazard classes and H-statements : see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice. First aider: Pay attention to self-protection. Do not inhale vapor. Wear gloves.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
First-aid measures after skin contact	: Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Immediately rinse with water for a prolonged period while holding the eyelids wide open. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth out with water. Do NOT induce vomiting. Get medical advice/attention.

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects	: May cause slight temporary irritation.
Chronic symptoms	: No chronic health hazards are likely for this material.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Foam. Carbon dioxide (CO2). Dry chemical.
Unsuitable extinguishing media	: Do not use a water jet since it may cause the fire to spread.

### 5.2. Specific hazards arising from the chemical

Fire hazard	: Not flammable. Could burn but do not ignite readily. Burning produces irritating, toxic and noxious fumes.
Explosion hazard	: Product is not explosive.
Hazardous decomposition products in case of fire	: Carbon dioxide. Carbon monoxide.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire with normal precautions from a reasonable distance.
Protection during firefighting	: Wear recommended personal protective equipment. Complete protective clothing. Self-contained breathing apparatus.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Ventilate spillage area. Mark out the contaminated area with signs and prevent access to unauthorized personnel.
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### 6.1.1. For non-emergency personnel

Emergency procedures : Do not get in eyes, on skin, or on clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Evacuate unnecessary personnel.

### 6.1.2. For emergency responders

Emergency procedures : Do not attempt to take action without suitable protective equipment.

### 6.2. Environmental precautions

Do not allow product to spread into the environment. Prevent entry to sewers and public waters.

### 6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Absorb spilled material with sand or earth. Shovel into suitable and closed container for disposal. Wash contaminated area with large amounts of water.

Other information : Collect all waste in suitable and labeled containers and dispose according to local legislation.

### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For waste disposal after cleaning, see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Wear personal protective equipment. Avoid any direct contact with the product.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry place. Store in a closed container. Store in a well-ventilated place.

Incompatible products : Strong acids. Strong bases. Strong oxidizers.

Incompatible materials : None known.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Provide local exhaust or general room ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Environmental exposure controls : Prevent entry to sewers and public waters.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Chemically resistant protective gloves. Neoprene or nitrile rubber gloves. Protective gloves made of PVC

#### Eye protection:

Chemical goggles or safety glasses

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### Skin and body protection:

Long sleeved protective clothing. Chemical resistant safety shoes

### Respiratory protection:

In case of inadequate ventilation wear respiratory protection.

### Thermal hazard protection:

Not applicable.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear liquid.
Color	: Clear
Odor	: Not determined
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 370 °F
Relative evaporation rate (butyl acetate=1)	: < 1
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: Heavier (air=1)
Relative density	: No data available
Density	: 0.925
Solubility	: Insoluble.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: 0.3 stokes @ 77°F
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known.

### 10.2. Chemical stability

The product is stable at normal handling and storage conditions.

### 10.3. Possibility of hazardous reactions

Stable under normal conditions of use.

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### 10.4. Conditions to avoid

Overheating. Open flame.

### 10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizers.

### 10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: 0.3 stokes @ 77°F
Symptoms/effects	: May cause slight temporary irritation.
Chronic symptoms	: No chronic health hazards are likely for this material.

## SECTION 12: Ecological information

### 12.1. Toxicity

No additional information available

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

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### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Waste treatment methods	: Dispose in a safe manner in accordance with local/national regulations.
Sewage disposal recommendations	: Do not dispose of waste into sewer.
Product/Packaging disposal recommendations	: Dispose of contents or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

DOT	IMDG	IATA
<b>14.1. UN number</b>		
Not regulated for transport		
<b>14.2. Proper Shipping Name</b>		
Not applicable	Not applicable	Not applicable
<b>Transport document description</b>		
Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>		
Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>		
Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>		
Not applicable	Not applicable	Not applicable
No supplementary information available		

#### 14.6. Special precautions for user

##### DOT

No data available

##### IMDG

No data available

##### IATA

No data available

#### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

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This product or mixture is NOT known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

### 15.2. International regulations

#### CANADA

##### 9-Octadecenoic acid, 12-hydroxy-, methyl ester, [R-(Z)]- (141-24-2)

Listed on the Canadian DSL (Domestic Substances List)

#### EU-Regulations

##### 9-Octadecenoic acid, 12-hydroxy-, methyl ester, [R-(Z)]- (141-24-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### National regulations

##### 9-Octadecenoic acid, 12-hydroxy-, methyl ester, [R-(Z)]- (141-24-2)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on KECL/KECI (Korean Existing Chemicals Inventory)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on the Japanese ISHL (Industrial Safety and Health Law)  
Listed on the TCSI (Taiwan Chemical Substance Inventory)  
Listed on the NCI (Vietnam - National Chemicals Inventory)

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

## SECTION 16: Other information

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Revision date : 01/21/2022

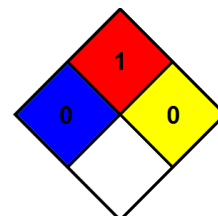
Data sources : Aurorium. Supplier's safety documents. ECHA (European Chemicals Agency).

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#### Abbreviations and acronyms

	CAS (Chemical Abstracts Service) number
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	NFPA (National Fire Protection Association)

NFPA health hazard : 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.  
NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.  
NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

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Health	: 0 Minimal Hazard - No significant risk to health
Flammability	: 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

### Indication of changes:

All chapters have been modified since the previous version (new software).

Safety Data Sheet (SDS), USA

Important Note: Please note that the information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. The information contained herein may change without prior notice. THIS SAFETY DATA SHEET SUPERSEDES ALL PREVIOUS EDITIONS.