

# SAFETY DATA SHEET

HERNON Activator EF59

This safety data sheet complies with the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Issue Date 11/20/2015

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Version 1

## 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifier

Product Code MS-059  
Product Name EF Aktivator 59

### 1.2 Relevant identified uses of the substances or mixture and uses advised against

Recommended Use: Activator  
Use advised against: None known

### 1.3 Details of the supplier of the safety data sheet

Hernon Manufacturing Inc.  
121 Tech Drive  
Sanford, FL 32771  
800-527-0004  
E-Mail [customerservice@hernon.com](mailto:customerservice@hernon.com)

### 1.4 Emergency telephone number

Chemtel 800-255-3924  
§45 - (EC) 1272/2008 Europe 112

## 2 HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Regulation (EC) No 1272/2008

Aspiration toxicity	Category 1 – (H304)
Acute toxicity - Oral	Category 4 – (H302)
Skin corrosion/irritation	Category 2 – (H315)
Serious eye damage/eye irritation	Category 2 – (H319)
Specific target organ toxicity (single exposure)	Category 3 – (H336)
Acute aquatic toxicity	Category 1 – (H400)
Chronic aquatic toxicity	Category 1 – (H410)
Flammable liquids	Category 2 – (H225)

## 2.2 Label elements

Product identifier

Contains Heptane, Isopropyl Alcohol, 3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine



**Signal word**

Danger

### **Hazard statements**

H302 – Harmful if swallowed

H304 – May be fatal if swallowed and enters airways

H315 – Causes skin irritation

H319 – Causes serious eye irritation

H336 – May cause drowsiness or dizziness

H410 – Very toxic to aquatic life with long lasting effects

H225 – Highly flammable liquid and vapor

### **Precautionary Statements – EU §28, No 1272/2008**

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

P301 + P310 – IF SWALLOWED: Immediately call a Poison Center or doctor/physician

P331 – Do NOT induce vomiting

P370 + P378 – In case of fire: Use dry chemical or CO<sub>2</sub> to extinguish

P403 + P233 – Store in a well-ventilated place. Keep container tightly closed

P403 + P235 – Store in a well-ventilated place. Keep cool

## 2.3 Other hazards

No information available

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

Chemical Name	EG-No.	CAS No.	Weight-%	Classification according to Regulation (EG) Nr. 1272/2008 [CLP]	REACH Registration Number
Heptane	205-563-8	142-82-5	30 - 60	Skin Irrit. 2 (H315) STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Flam. Liq. 2 (H225)	No data available
3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine	252-091-3	34562-31-7	15 - 40	Acute Tox. 5 (H302) Acute Tox. (H312) Skin Irrit. 2 (H215) Eye Irrit. 2 (H319)	No data available
Isopropyl Alcohol	200-661-7	67-63-0	10 - 30	Eye Irrit. 2 (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225)	No data available

Full text of H- and EUH-phrases: see section 16

### 4 FIRST AID MEASURES

#### 4.1 Description of first aid measures

<b>Inhalation</b>	Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention immediately.
<b>Skin contact</b>	Wash with soap and water. Flush skin with water for several minutes. Remove contaminated clothing and shoes. If irritation develops, seek medical attention. Wash clothing before.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 12 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Ingestion</b>	Induce vomiting, but only if victim is fully conscious. Never give anything by mouth to an unconscious person. Call a POISON CENTER or doctor/physician if you feel unwell.

#### 4.2 Most important symptoms and effects, both acute and delayed

**Symptoms** No information available

#### 4.3 Indication of any immediate medical attention and special treatment needed

**Note to physician** Treat symptomatically

## 5 FIRE FIGHTING MEASURES

### 5.1 Extinguishing media

**Suitable extinguishing media:** Use CO<sub>2</sub>, dry chemical, or foam

**Unsuitable extinguishing media:** No information available

### 5.2 Special hazards arising from the substance or mixture

Vapors may accumulate in confined areas (basement, tanks, hopper/tanks cars, etc.) Vapors may travel to source of ignition and flash back

**Hazardous combustion products:** Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>)

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

## 6 ACCIDENTAL RELEASE MEASURES

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

**Personal precautions** Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas.

**For emergency responders** Use personal protection recommended in Section 8..

### 6.2 Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. See Section 12 for additional ecological information.

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

**Methods of containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Soak up with inert absorbent material. Store in a closed container until ready for disposal.

### 6.4 Reference to other sections

See Section 8 for more information. See Section 13 for more information.

## 7 HANDLING AND STORAGE

### 7.1 Precautions for safe handling

#### Advice on safe handling

Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Wash thoroughly after handling. Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame and other sources of ignition (i.e. pilot lights, electric motors and static electricity).

#### General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

### 7.2 Conditions for safe storage, including and incompatibilities

#### Storage Conditions

Keep at temperatures between 7 and 29 °C. Keep container tightly closed in a dry and well-ventilated place.

#### Incompatible materials

Oxidizers

### 7.3 Specific end use(s)

#### Risk management methods (RMM)

The information required is contained in this Material Safety Data Sheet

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Chemical Name	EU	United Kingdom	France	Spain	Germany
HEPTANE 142-82-5	TWA 500 ppm TWA 2085 mg/m3	TWA: 500 ppm TWA: 2085 mg/m3 STEL: 1500 ppm STEL: 6255 mg/m3	TWA: 400 ppm TWA: 1668 mg/m3 TWA: 1000 mg/m3 STEL: 500 ppm STEL: 2085 mg/m3 STEL: 1500 mg/m3	TWA: 500 ppm TWA: 2085 mg/m3	TWA: 500 ppm TWA: 2100 mg/m3
ISOPROPYL ALCOHOL 67-63-0	-	TWA: 400 ppm TWA: 999 mg/m3 STEL: 500 ppm STEL: 1250 mg/m3	STEL: 400 ppm STEL: 980 mg/m3	TWA: 200 ppm TWA: 500 mg/m3 STEL: 400 ppm STEL: 1000 mg/m3	TWA: 200 ppm TWA: 500 mg/m3
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
HEPTANE 142-82-5	TWA: 500 ppm TWA: 2085 mg/m3	TWA: 500 ppm TWA: 2085 mg/m3 STEL: 500 ppm	TWA: 1200 mg/m3 STEL: 1600 mg/m3	TWA: 300 ppm TWA: 1200 mg/m3 STEL: 500 ppm STEL: 2100 mg/m3	TWA: 200 ppm TWA: 820 mg/m3
ISOPROPYL ALCOHOL 67-63-0	-	TWA: 200 ppm STEL: 400 ppm	-	TWA: 200 ppm TWA: 500 mg/m3 STEL: 250 ppm STEL: 620 mg/m3	TWA: 200 ppm TWA: 490 mg/m3
COPPER ACETYLACETONATE 13395-16-9	-	-	-	TWA: 0.02 mg/m3	-

Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
HEPTANE 142-82-5	TWA: 500 ppm TWA: 2000 mg/m3 STEL 2000 ppm STEL 8000 mg/m3	TWA: 400 ppm TWA: 1600 mg/m3 STEL: 400 ppm STEL: 1600 mg/m3	STEL: 2000 mg/m3 TWA: 1200 mg/m3	TWA: 200 ppm TWA: 800 mg/m3 TWA: 40 ppm TWA: 275 mg/m3 STEL: 250 ppm STEL: 1000 mg/m3 STEL: 60 ppm STEL: 343.75 mg/m3	TWA: 500 ppm TWA: 2085 mg/m3 STEL: 1500 ppm STEL: 6255 mg/m3
ISOPROPYL ALCOHOL 67-63-0	TWA: 200 ppm TWA: 500 mg/m3 STEL 800 ppm STEL 2000 mg/m3	TWA: 200 ppm TWA: 500 mg/m3 STEL: 400 ppm STEL: 1000 mg/m3	STEL: 1200 mg/m3 TWA: 900 mg/m3	TWA: 100 ppm TWA: 245 mg/m3 STEL: 125 ppm STEL: 306.25 mg/m3	TWA: 200 ppm STEL: 400 ppm Sk*
COPPER ACETYLACETONATE 13395-16-9	TWA: 1 mg/m3 TWA: 0.1 mg/m3 STEL 4 mg/m3 STEL 0.4 mg/m3	-	-	-	-

Chemical Name	EU	United Kingdom	France	Spain	Germany
ISOPROPYL ALCOHOL 67-63-0	-	-	-	40	25 mg/L
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
ISOPROPYL ALCOHOL 67-63-0	-	25	-	-	-

**Derived No Effect Level (DNEL)**

No information available.

**Predicted no effect concentration (PNEC)**

No information available.

## 8.1 Exposure Controls

Engineering Controls	Ensure adequate ventilation, especially in confined areas
Personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles)
Hand protection	Wear protective gloves. Gloves made of plastic or rubber
Skin and body protection	Suitable protective clothing
Respiratory protection	In case on insufficient ventilation, wear suitable respiratory equipment
<b>Environmental exposure controls</b>	No information available.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Physical State	Liquid
Appearance	No information available
Odor	Aliphatic
Color	Amber – light yellow
Odor threshold	No information available

<b>Property</b>	<b>Values</b>	<b>Remarks/Methods</b>
pH	Does not apply	
Melting point / freezing point		No information available
Boiling point / boiling range	>80 °C / 176 °F	
Flash point	>-4 °C / 28 °F	
Evaporation rate		No information available
Flammability (solid/gas)		No information available
Upper flammability limit in Air:		No information available
Lower flammability limit in Air:		No information available
Vapor pressure		
Vapor density	>1	
Relative density	0.78	
Water solubility	Immiscible in water	
Solubility(ies)		No information available
Partition coefficient		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
Kinematic viscosity		No information available
Dynamic viscosity		No information available
Explosive properties		No information available
Oxidizing Properties		No information available

### 9.2 Other information

Softening point	No information available
Molecular weight	No information available
VOC content (%)	No information available
Density	No information available
Bulk density	No information available



## 10 STABILITÄT UND REAKTIVITÄT

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under normal conditions

#### Explosion data:

Sensitivity to Mechanical Impact           None

Sensitivity to Static Discharge           None

### 10.3 Possibility of hazardous reactions

Possibility of hazardous reactions           None under normal processing

### 10.4 Conditions to avoid

Keep away from heat, sparks and open flame. Incompatible materials.

### 10.5 Incompatible materials

Oxidizers.

### 10.6 Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NO<sub>x</sub>). Irritating organic vapors.

## 11 TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity

#### Product information:

<b>Inhalation</b>	No data available
<b>Eye contact</b>	No data available
<b>Skin contact</b>	No data available
<b>Ingestion</b>	No data available

The following values are calculated based on chapter 3.1 of the GHS document.

<b>ATEmix (oral)</b>	671.00 mg/kg
<b>ATEmix (dermal)</b>	1,925.00 mg/kg ppm
<b>ATEmix (inhalation-dust/mist)</b>	94.00 mg/l

Chemische Bezeichnung	LD50 oral	LD50 dermal	LC50 inhalation
Heptane		= 3000 mg/kg (Rabbit )	= 103 g/m <sup>3</sup> (Rat) 4h
Isopropyl Alcohol	=1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit )	= 4632 ppm (Rat) 4h

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/eye irritation</b>	No information available.
<b>Sensitization</b>	No information available.
<b>Germ Cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

## 12 ECOLOGICAL INFORMATION

### 12.1 Toxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Heptane	-	375.0: 96 h Cichlid fish mg/L LC50	10: 24 h Daphnia magna mg/L EC50
Isopropyl Alcohol	1000: 96 h Desmodesmus subspicatus mg/L EC50 1000: 72 h  Desmodesmus subspicatus mg/L EC50	11130: 96 h Pimephales promelas mg/L LC50 static 9640: 96 h  Pimephales promelas mg/L LC50 flow-through 1400000: 96 h Lepomis macrochirus µg/L LC50	13299: 48 h Daphnia magna mg/L EC50

### 12.2 Persistence and degradability

No information available.

### 12.3 Bioaccumulative potential

No information available.

Chemical name	Partition coefficient
Heptane	4.66
Isopropyl Alcohol	0.05

### 12.4 Mobility in soil

Es liegen keine Informationen vor.

### 12.5 Results of PBT and vPVB assessment

No information available.

### 12.6 Other adverse effects

No information available.

## 13 DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

**Waste from residues/  
unused products** Disposal should be in accordance with applicable regional, national and local laws and regulations

**Contaminated packaging** Improper disposal or reuse of this container may be dangerous and illegal

## 14 TRANSPORT INFORMATION

### IMDG

14.1 UN/ID-No. UN1993  
 14.2 Proper shipping name Flammable Liquid, n.o.s. (Heptane, Isopropyl Alcohol)  
 14.3 Hazard Class 3  
 14.4 Packing Group II  
 Description Limited quantities: 1L  
 14.5 Marine pollutant Yes  
 14.6 Special Provisions 274  
 EmS-No. F-E, S-E  
 14.7 Transport in bulk No information available  
 according to appendix II of MARPOL 73/78 and the IBC-Code

### IATA

14.1 UN/ID-No. UN1993  
 14.2 Proper shipping name Flammable Liquid, n.o.s. (Heptane, Isopropyl Alcohol)  
 14.3 Hazard Class 3  
 14.4 Packing Group II  
 Description Limited quantities: 1L  
 14.5 Environmental hazard YES  
 14.6 Special Provisions A3

### DOT

14.1 UN/ID-No. UN1993  
 14.2 Proper shipping name Flammable Liquid, n.o.s. (Heptane, Isopropyl Alcohol)  
 14.3 Hazard Class 3  
 14.4 Packing Group II  
 14.6 Special Provisions IB2, T7, TP1, TP8, TP28

## 15 REGULATORY INFORMATION

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

#### France

##### Occupational Illnesses(R-463-3, France)

Chemical name	French RG number	Title
Heptane 142-82-5	RG 84	--
Isopropyl Alcohol 67-63-0	RG 84	--

#### European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

#### Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006, (REACH), Annex XIV). This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006, (REACH), Annex XVII)

**Persistent Organic Pollutants** Not applicable

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009** Not applicable

#### International Inventories

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

#### US State Regulations

**California Proposition 65** This product does not contain any Proposition 65 chemicals

## 15.2 Chemical safety assessment

No information available.

## 16 OTHER INFORMATION

### Key or legend to abbreviations and acronyms used in the safety data sheet

#### Full text of H-Statements referred to under section 3

H315 - Causes skin irritation  
H336 - May cause drowsiness or dizziness  
H304 - May be fatal if swallowed and enters airways  
H400 - Very toxic to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects  
H225 - Highly flammable liquid and vapor  
H302 - Harmful if swallowed  
H312 - Harmful in contact with skin  
H319 - Causes serious eye irritation

#### Legend

SVHC: Substances of Very High Concern of Authorization

#### Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA            TWA (time-weighted average)  
Ceiling        Maximum limit value

STEL           STEL (Short term Exposure Limit)  
\*                Skin designation

Prepared by	SDS coordinator
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**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.**

#### Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.