

**Product Name:** Eptano Recuperato  
**Issued:** Jun-18-2013

## **SAFETY DATA SHEET**

### **Section 1. Identification of the substance/mixture and of the company/undertaking**

#### **1.1 Product Identifier**

**Product Name:** Eptano Recuperato  
**Synonyms:** Recovered Heptanes; Heptane mixture

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

**Recommended use:** Industrial use  
Scientific research and development

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

**Supplier:** AbbVie Inc.  
1 North Waukegan Road  
North Chicago, IL 60064  
USA  
1-800-255-5162  
+1-847-937-7433

**Manufacturer European:** AbbVie Inc.  
via Pontina, km 52  
Campoverde - LT 04010  
Italia

**Customer Service Telephone:** 1-800-255-5162 (US and Canada only)  
+1-847-937-7433

**E-mail Address:** AbbVie.SDS@abbvie.com

#### **1.4 Emergency telephone number**

**Emergency Telephone:** CHEMTREC: 1(800) 424-9300 (in USA and Canada)  
or +1-703-527-3887 (international)

### **Section 2. Hazards identification**

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

**Regulation (EC) No 1272/2008**

<b>Aspiration toxicity</b>	Category 1	
<b>Skin corrosion/irritation</b>	Category 2	
<b>Specific target organ systemic toxicity (single exposure)</b>	Category 3	
<b>Acute aquatic toxicity</b>	Acute 1	
<b>Chronic aquatic toxicity</b>	Chronic toxicity 1	
<b>Flammable liquids</b>		Category 2

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

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## Section 2. Hazards identification

**Indication of danger:**

F - Highly flammable  
Xn - Harmful  
Xi - Irritant  
N - Dangerous for the environment

**Risk Phrases:**

R11 - Highly flammable  
R38 - Irritating to skin  
R50 - Very toxic to aquatic organisms  
R53 - May cause long-term adverse effects in the aquatic environment  
R65 - Harmful: may cause lung damage if swallowed  
R67 - Vapors may cause drowsiness and dizziness

### 2.2 Label elements



**Signal Word:**

Danger

**Hazard Statements:**

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

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing  
P312 - Call a POISON CENTER or doctor/physician if you feel unwell  
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

### 2.3 Other hazards

Not determined

## Section 3. Composition/information on ingredients

Chemical Name	Percent	EINECS/ELINCS Number	EEC Classification	EU - GHS Substance Classification	REACH No.
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### Section 3. Composition/information on ingredients

Heptane 142-82-5	95-100	Present	F; R11 N; R50-53 R67 Xi; R38 Xn, R65	STOT SE 3 (H336) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Flam. Liq. 2 (H225)	No data available
Ethyl Acetate 141-78-6	1-9.9	Present	F; R11 R66 R67 Xi; R36	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) STOT SE 3 (H336)	No data available
Water 7732-18-5	0.1-1	Present		Not Hazardous*	No data available

Not Hazardous\* - Based on available data, not classified as hazardous according to the criteria of the Globally Harmonized System.

**For the full text of the R-phrases mentioned in this Section, see Section 16**  
**For the full text of the H-Statements mentioned in this Section, see Section 16**

### Section 4. First aid measures

#### 4.1 Description of first aid measures

**Eye Contact:** Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

**Skin Contact:** Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

**Inhalation:** Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

**Ingestion:** Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

**Protection of First-aiders:** Use personal protective equipment

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

**Signs and Symptoms:** Exposure may result in the following: respiratory irritation, eye irritation, skin irritation, headaches, incoordination, muscle weakness, vertigo, lightheadedness, variable central nervous system effects, death.

**Medical Conditions Aggravated by Exposure:** None known from occupational exposure. Data suggest any pre-existing ailments in the following organs: eyes, skin, respiratory system.

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

**Notes To Physician:** Monitor central nervous system, cardiovascular and respiratory systems as necessary.

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**Additional Information:** Heptane may sensitize the myocardium to epinephrine and produce ventricular fibrillation.

## **Section 5. Firefighting measures**

### **5.1 Extinguishing Media**

**Suitable Extinguishing Media:** Use extinguishing agent suitable for type of surrounding fire

**Unsuitable Extinguishing Media:** Not determined

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

**Special Exposure Hazards:** Not determined

### **5.3 Advice for firefighters**

**Protective Equipment and Precautions for Firefighters:** As in any fire, wear self-contained breathing apparatus and full protective gear

## **Section 6. Accidental release measures**

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

**Personal Precautions:** For personal protection see section 8

### **6.2. Environmental precautions**

**Environmental Precautions:** Contain material and prevent release to waterways or soil.

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

**Methods for Cleaning Up:** Recover product and place in an appropriate container for disposal.

### **6.4. Reference to other sections**

Refer to Sections 8, 12, and 13 for further information.

## **Section 7. Handling and storage**

### **7.1. Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practice. Keep away from open flames, hot surfaces and sources of ignition.

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

Store according to label instructions

### **7.3. Specific end use(s)**

**Recommended use:** Industrial use  
Scientific research and development

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## Section 8. Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits:

Chemical Name	Employee Exposure Limit	Skin Notation
Heptane 142-82-5	400 ppm (OSHA)	None
Ethyl Acetate 141-78-6	Not Applicable	None
Water 7732-18-5	Not Applicable	None

Chemical Name	ACGIH TLV	France	German MAK	Ireland	Italy
Heptane 142-82-5	500 ppm STEL 400 ppm TWA	STEL: 2085 mg/m <sup>3</sup> TWA: 1668 mg/m <sup>3</sup>	2100 mg/m <sup>3</sup> TWA	500 ppm (TWA) 2085 mg/m <sup>3</sup> (TWA) 500 ppm (TWA)	2085 mg/m <sup>3</sup> (TWA)
Ethyl Acetate 141-78-6	400 ppm TWA	TWA: 1400 mg/m <sup>3</sup>	1500 mg/m <sup>3</sup> TWA	400 ppm (STEL) 200 ppm (TWA)	

Chemical Name	The Netherlands	Spain	Switzerland	UK OEL/MEL
Heptane 142-82-5	1600 mg/m <sup>3</sup> (STEL) 1200 mg/m <sup>3</sup> (TWA)	2085 mg/m <sup>3</sup> (TWA)	1600 mg/m <sup>3</sup> (TWA) 1600 mg/m <sup>3</sup> (STEL)	1500 ppm (STEL) 6255 mg/m <sup>3</sup> (STEL) 1500 ppm (STEL) 500 ppm (TWA) 2085 mg/m <sup>3</sup> (TWA)
Ethyl Acetate 141-78-6		1460 mg/m <sup>3</sup> (TWA)	1400 mg/m <sup>3</sup> (TWA) 2800 mg/m <sup>3</sup> (STEL)	400 ppm (STEL) 200 ppm (TWA)

### 8.2. Exposure controls

**Engineering Controls:** Local exhaust ventilation as necessary to maintain exposures to within applicable limits.

**Respiratory Protection:** An approved respirator (i.e. NIOSH, EN, etc.) should be worn when exposures are expected to exceed the applicable limits.

**Eyes:** Wear eye protection appropriate to handling activities.

**Gloves:** Impervious gloves.

**Other PPE Data:** Wear appropriate body coverings if contact may occur.

**Environmental Exposure Controls:** Not determined

## Section 9. Physical and chemical properties

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

**Appearance:** Liquid

**Odor:** Characteristic for Heptane.

**Odor Threshold:** Not determined

**pH:** Not determined.

**Boiling Pt. @ 760 mm Hg (°C):** Not determined.

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**Melting/Freezing Point (°C):** Not determined  
**Flash Point (°C):** - 4 (for Heptane)  
**Evaporation Rate at 20°C:** Not determined.  
**Flammability (Solid):** Not determined.  
**Lower Explosive Limit:** 1.05% (for Heptane)  
**Upper Explosive Limit:** 6.7% (for Heptane)  
**Vapor Pressure (mm Hg):** Not determined.  
**Vapor Density (Air = 1):** Not determined.  
**Specific Gravity:** Not determined.  
**Solubility(ies):** Not determined.  
**Partition coefficient: n-octanol/water** Not determined.  
**Autoignition Temp. (°C):** 223 (for Heptane)  
**Decomposition temperature (°C):** Not determined.  
**Viscosity (centipoise):** Not determined.  
**Explosion Severity:** Not determined.  
**Oxidizer Properties:** Not determined.

## **9.2. Other information**

Not determined

## **Section 10. Stability and reactivity**

### **10.1. Reactivity**

Not determined

### **10.2. Chemical stability**

Stable under normal conditions

### **10.3. Possibility of hazardous reactions**

**Hazardous reactions:** Not determined.

### **10.4. Conditions to avoid**

Not determined.

### **10.5 Incompatible materials**

Not determined

### **10.6 Hazardous decomposition products**

Carbon oxides

## **Section 11. Toxicological information**

### **11.1. Information on toxicological effects**

**Routes of Exposure:**

**Oral:** Yes  
**Dermal:** Yes  
**Inhalation:** Yes

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**Acute Toxicity - Oral:** Data for component (s) given below.

Chemical Name	Acute Test	Value	Units	Species
Heptane 142-82-5	LD50 >	260,000	mg/kg	Rats
Ethyl Acetate 141-78-6	LD50 =	4100-4935	mg/kg	Mice Rats Rabbits

**Acute Toxicity - Dermal:** Data for component (s) given below.

Chemical Name	Acute Test	Value	Units	Species
Heptane 142-82-5	LD50 =	3400	mg/kg	Rabbits
Ethyl Acetate 141-78-6	LD50 >	20	ml/kg	Rabbits

**Acute Toxicity - Inhalation:** Data for component (s) given below.

Chemical Name	Test	Value	Units	Species
Heptane 142-82-5	LC 50 =	130,000	mg/m <sup>3</sup> , 4 hour	Rats
Ethyl Acetate 141-78-6	LC 50 =	200	g/m <sup>3</sup>	Rats

**Notes to Toxicologist:** Exposure to > 15,000 ppm produced narcosis for 30 min in mice; longer exposure produced convulsions and death in mice. No evidence in rats under similar conditions.

**Other Toxicology Data:** Data for component (s) given below:

Chemical Name	Test Type	Value	Units	Species	Comments
Heptane 142-82-5	LD50 (iv) =	222	mg/kg	Mice	

**Corrosivity:** Not determined.

**Dermal Irritation:** Major ingredient: Reported to produce skin irritation in humans.

**Eye Irritation:** Minor ingredient: Reported to produce eye irritation.

**Sensitization:** Not determined.

**Toxicokinetics/Metabolism:** Not determined.

**Target Organ Effects:** Major Ingredient : In animal testing, target organs include: central nervous system.  
Data for component (s) given below.

Chemical Name	Target Organs:	Species	Dosage	Units	Route	Duration
Ethyl Acetate 141-78-6	Respiratory System Eyes	Humans	400	ppm	Inhalation	Not Specified

Heptane at exposure levels of 1000ppm produced reversible central nervous system effect in humans, such as narcosis.

**Reproductive Effects:** Not determined.

**Carcinogenicity:** Not determined.

**Mutagenicity:** Negative in mutagenicity assays.

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**Aspiration hazard:** Not determined

**Notes:**

1. ALD: Approximate lethal dosage
2. LC50: Concentration in air that produces 50% mortality
3. LD50: Oral or dermal dosage that produces 50% mortality

## Section 12. Ecological information

### 12.1. Toxicity

Data for component (s) given below.

Chemical Name	Percent	LC 50 (mg/l)	Species	Duration
Heptane 142-82-5	95-100	4	Carassius auratus	24 hours
Ethyl Acetate 141-78-6	1-9.9	350-600 220-250	Rainbow Trout Fathead Minnow	96 Hours

Chemical Name	Percent	EC 50 (mg/l)	Species	Duration
Heptane 142-82-5	95-100	1.5	Daphnia magna	48 Hours
Ethyl Acetate 141-78-6	1-9.9	560	Daphnia magna	24 hours

### 12.2. Persistence and degradability

Not determined.

### 12.3. Bioaccumulative potential

Data for components given below.

Chemical Name	Percent	Log Po/w
Heptane 142-82-5	95-100	4.66

### 12.4. Mobility in soil

Not determined.

### 12.5. Results of PBT or vPvB assessment

Chemical safety report is not required for this substance/product.

### 12.6. Other adverse effects

Do not allow undiluted material or large quantities to reach groundwater, bodies of water or sewer system.

**Notes:**

1. EC50: Concentration in water that produces 50% mortality in Daphnia sp.
2. LC50: Concentration in water that produces 50% mortality in fish.
3. EbC50/ErC50: Concentration in water that produces 50% inhibition of growth and in algae.

## Section 13. Disposal considerations



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## Section 13. Disposal considerations

### 13.1 Waste treatment methods

**Waste Disposal Methods:** Disposal should be made in accordance with country, federal, state and local regulations.

## Section 14. Transport information

### ADR, DOT, ICAO/IATA, IMDG/IMO

**Status:** Regulated

**14.1. UN Number:** UN1993  
**14.2. Proper shipping name:** Flammable liquid, n.o.s. (Heptanes, Ethyl Acetate)  
**14.3. Hazard class:** 3  
**14.4. Packing group:** II  
**14.5. Environmental hazard:** Not applicable  
**14.6. Special Provisions:** Not applicable  
**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. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### International Inventories

Chemical Name	EINECS/ ELINCS	TSCA	DSL	NDSL	PICCS
Heptane 142-82-5	Present	X	X	Not listed.	X
Ethyl Acetate 141-78-6	Present	X	X	Not listed.	X
Water 7732-18-5	Present	X	X	Not listed.	X

Chemical Name	ENCS	ISHL	IECSC	AICS	KECL	New Zealand
Heptane 142-82-5	Present	-	X	X	Present	HSR001164
Ethyl Acetate 141-78-6	Present	-	X	X	Present	HSR001041
Water 7732-18-5	-	2-(4)-1220	X	X	Present	

### Legend

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**ISHL** - Japan Industrial Safety and Health Law  
**IECSC** - China Inventory of Existing Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances

### Carcinogenicity Rating:

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Chemical Name	Percent	NTP:	IARC:	ACGIH:
Heptane	95-100	Not Listed	Not Listed	Not Listed
Ethyl Acetate	1-9.9	Not Listed	Not Listed	Not Listed
Water	0.1-1	Not Listed	Not Listed	Not Listed

### SARA 313 Information

Chemical Name	Percent	SARA 313 Chemical:	CERCLA RQ/SARA EHS RQ (lbs):	SARA EHS TPQ (lbs):
Heptane	95-100	No	Not Applicable	Not applicable
Ethyl Acetate	1-9.9	No	2270 kg	Not applicable
Water	0.1-1	No	Not Applicable	Not applicable

**Immediate Health:** Yes  
**Delayed Health:** No  
**Fire:** Yes  
**Sudden Pressure:** No  
**Reactivity:** No

**RCRA Status:** Not determined.

**Proposition 65 Status:** Does not contain chemicals known to the state of California to cause cancer or reproductive harm.

**WHMIS Hazard Class:** Not determined.

**NFPA Rating:**  
Health: 2  
Fire: 3  
Reactivity: 0

**Notes:**

1. SARA = Superfund Amendments and the Reauthorization Act.
2. CERCLA = Comprehensive Environmental Response, Compensation and Liability Act.
3. FIFRA = Federal Insecticide, Fungicide and Rodenticide Act.
4. TSCA = Toxic Substances Control Act.
5. EC = European Community.
6. WHMIS = Canadian Workplace Hazardous Materials Information System.
7. UN GHS = United Nations Globally Harmonized System for Hazard Identification.

### 15.2. Chemical safety assessment

Chemical safety assessment has not been conducted on the substance/product.

## **Section 16. Other information**

**Risk Phrases:** R11 - Highly flammable, R38 - Irritating to skin, R50 - Very toxic to aquatic organisms, R53 - May cause long-term adverse effects in the aquatic environment, R65 - Harmful: may cause lung damage if swallowed, R67 - Vapors may cause drowsiness and dizziness

**Full text of H-Statements referred to under sections 2 and 3**

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

**Document Authored By:** Global Occupational Toxicology (D-03QC)

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