

# SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006 (REACH)

Version 2.2 Print date: 5/12/2011

Revision date: 5/12/2011



**CIRS**  
CHEMICAL INSPECTION  
& REGULATION SERVICE

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

### 1.1 Product identifier:

Identification on the label: PENTANE-2,4-DIONE

CAS: 123-54-6 EC: 204-634-0

Index Number: 606-029-00-0

REACH Pre-registration No.: N/A

Trade name: CIRS PLE

### 1.2 Relevant identified uses of the substance and uses advised against:

#### 1.2.1 Identified uses:

Chemical intermediate.

#### 1.2.2 Uses advised against:

Not available.

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

Chemical Inspection & Regulation Service Ltd  
Singleton House, Laurence Street, Co. Louth, Ireland  
Tel : +353 41 9806 916 Fax : +353 41 9806 999  
Email: info@cirs-reach.com

### 1.4 Emergency telephone Number: +353 41 9806 916

Available 24 hours?

YES

NO

## Section 2 HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

#### 2.1.1 Classification:

Self-classification in according to EU CLP 1272/2008	
Hazard classes/Hazard categories	Hazard statement
Flam. Liquid 3	H226
Acute Tox. 4 (oral)	H302

For full text of H- phrases: see section 2.2.

Self-classification in according to 67/548/EEC(DSD)	
Hazards characteristics	R-Phrases
-	R10
Xn	R22

For full text of R- phrases: see section 16.

#### 2.1.2 The most important adverse effects

##### 2.1.2.1 The most important adverse physicochemical effects:

Flammable liquid and vapour.

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2.1.2.2 The most important adverse human health effects:  
Harmful if swallowed.

2.1.2.3 The most important adverse environmental effects:  
Not applicable.

## 2.2 Label elements

**Hazard Pictograms:**



**Signal Word(S):** **Warning**

**Hazard Statement:** H226: Flammable liquid and vapour.  
H302: Harmful if swallowed.

**Precautionary Statement:** P210: Keep away from heat/sparks/open flames/hot surfaces. — No smoking.  
P241: Use explosion-proof electrical/ventilating/lighting/equipment.  
P243: Take precautionary measures against static discharge.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P330: Rinse mouth.  
P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P370 + P378: In case of fire: Use carbon dioxide for extinction.  
P403 + P235: Store in a well-ventilated place. Keep cool.  
P501: Dispose of contents/container to an approved waste disposal plant.

## 2.3 Other hazards

In use, may form flammable / explosive vapour-air mixture.

## Section 3 COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/Mixture:** Substance  
**Ingredient(s):**

Substance Name	CAS#	EC#	% by weight	REACH No.	Classification
CAMDATE PLE	123-54-6	204-634-0	–	-	H226, H302

## Section 4 FIRST AID MEASURES

### 4.1 Description of first aid measures:

4.1.1 In case of inhalation:

Consult a doctor. Remove to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult give oxygen.

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#### 4.1.2 In case of skin contact:

Consult a doctor. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.

#### 4.1.3 In case of eyes contact:

Consult a doctor. Flush eyes with plenty of water for at least 15 mins, occasionally lifting the upper and lower lids.

#### 4.1.4 In case of ingestion:

Consult a doctor. Induce vomiting. If conscious and alert rinse mouth and drink 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person.

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

Harmful if swallowed. Toxic in contact with skin. Toxic if inhaled.

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

Immediately call a POISON CENTER or doctor/physician.

### Section 5 FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing media:

Suitable extinguishing media: Carbon dioxide. Alcohol resistant foam. Dry chemical powder. Use water spray to cool containers.

Unsuitable extinguishing media: n/a.

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

Vapour may travel considerable distance to source of ignition and flash back. Fire or intense heat may cause violent rupture of packages. Flammable liquid and vapour.

#### 5.3 Advice for fire-fighters:

Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

### Section 6 ACCIDENTAL RELEASE MEASURES

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

Refer to section 8 of SDS for personal protection details.

#### 6.2 Environmental precautions:

Do not discharge into drains or rivers. Contain the spillage using bunding.

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

Mix with sand or vermiculite. Using non-sparking tools, scoop solids into a DRY metal container, label properly and cover. Remove any sources of flame or sparks.

#### 6.4 Reference to other sections:

Refer to section 8 of the SDS

#### 6.5 Additional information:

Not available.

### Section 7 HANDLING AND STORAGE

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## 7.1 Precautions for safe handling:

### 7.1.1 Protective measures:

Bond and ground all systems when handling. Since emptied containers retain product residue, follow label warnings even after container is emptied. Keep container tightly closed. Avoid breathing vapor or mist. Use only with adequate ventilation.

### 7.1.2 Advice on general occupational hygiene:

Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas.

## 7.2 Conditions for safe storage, including any incompatibilities

Store in cool, well ventilated area. Keep away from sources of ignition. Keep container tightly closed. Segregate from incompatible materials and flammables area.

## 7.3 Specific end use(s):

Not available.

## Section 8 EXPOSURE CONTROL/PERSONAL PROTECTION

### 8.1 Control parameters:

#### 8.1.1 Occupational exposure limits:

Not available.

#### 8.1.2 Additional exposure limits under the conditions of use: Not available.

#### 8.1.3 DNEL/DMEL and PNEC-Values: Not available.

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls:

Use adequate ventilation to keep airborne concentrations low.

#### 8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection: Wear protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European standard EN 166.

Hand protection: Protective gloves. According to EU Directive 89/686/EEC.

Body protection: Protective clothing with elasticated cuffs and closed neck. Boots made of PVC.

Respiratory protection: Respiratory protection that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard 149.

#### 8.2.3 Environmental exposure controls:

Avoid discharge into the environment.

## Section 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance:	Liquid
Colour:	Colourless
Odour:	No data available

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Odour threshold:	No data available
pH:	No data available
Melting point/range (°C):	-47.5 -17.6 °C
Boiling point/range (°C) :	139.5 °C
Flash point (°C) :	35°C at 95.6 kPa
Evaporation rate:	No data available
Flammability (solid, gas);	No data available
Ignition temperature (°C) :	No data available
Upper/lower flammability/explosive limits:	No data available
Vapour pressure (20°C) :	7.9 hPa
Vapour density:	No data available
Relative Density (20°C):	0.97 g/cm <sup>3</sup>
Water solubility (g/l) at 20°C :	153.8-155.2 g/L
n-Octanol/Water (log Po/w) :	No data available
Auto-ignition temperature:	390 °C
Decomposition temperature:	No data available
Viscosity, dynamic (20 °C) :	0.762 mPa.s

## 9.2 Physical hazards:

Not classified.

## 9.3 Other information:

Fat solubility(solvent– oil to be specified) etc	Not available
Bulk Density:	Not available
Dissociation constant in water( pKa):	Not available
Oxidation-reduction Potential:	Not available

## Section 10 STABILITY AND RELIABILITY

### 10.1 Reactivity:

Stable under recommended transport or storage conditions.

### 10.2 Chemical stability:

Stable under normal temperatures and pressures.

### 10.3 Possibility of hazardous reactions:

Hazardous reactions will not occur under normal transport or storage conditions.  
Decomposition may occur on exposure to conditions or materials listed below.

### 10.4 Conditions to avoid:

Incompatible materials. Sources of ignition. Light. Air. Excessive heat.

### 10.5 Incompatible materials:

Strong oxidising agents.

### 10.6 Hazardous decomposition products:

In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

## Section 11 TOXICOLOGICAL INFORMATION

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## 11.1 Toxicokinetics, metabolism and distribution

Not available

## 11.2 Information on toxicological effects

### Acute toxicity:

LD50 (Oral, Rat): male: 760 mg/kg bw; female: 570 mg/kg bw

LD50 (Dermal Rabbit): male: 1370 mg/kg bw; female: 790 mg/kg bw

LC50 (Inhalation, Rat): 1224 ppm/4H

Skin corrosion/Irritation: No data available.

Serious eye damage/irritation: No data available.

Respiratory or skin sensitization: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: No data available.

Reproductive toxicity: No data available.

STOT- single exposure: No data available.

STOT-repeated exposure: No data available.

Aspiration hazard: No data available.

## Section 12 ECOLOGICAL INFORMATION

### Toxicity:

<i>Acute toxicity</i>		<i>Time</i>	<i>Species</i>	<i>Method</i>	<i>Evaluation</i>	<i>Remarks</i>
LC50	104mg/l	96h	Fish	OECD 203	N/A	N/A
EC50	50.9mg/l	24h	Daphnia	OECD 202	N/A	N/A
EC50	83.22 mg/L	72h	Algae	OECD 201	N/A	N/A

**Persistence and degradability:** No data available.

**Bioaccumulative potential:** No data available.

**Mobility in soil:** No data available.

**Results of PBT&vPvB assessment:** No data available.

**Other adverse effects:** No data available.

## Section 13 DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Contact a licensed professional waste disposal service. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Contaminated packing must be emptied of all residues and, following appropriate cleaning, may be sent to a recycling plant. Un-cleaned packaging must be disposed of in the same manner.

## Section 14. TRANSPORT INFORMATION

	<i>Land transport (ADR/RID)</i>	<i>Sea transport (IMDG)</i>	<i>Air transport (ICAO/IATA)</i>
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<b>UN-Number:</b>	2310	2310	2310
<b>UN Proper shipping name:</b>	Pentane-2, 4-dione	Pentane-2, 4-dione	Pentane-2, 4-dione
<b>Transport hazard Class:</b>	3	3	3
<b>Packaging group:</b>	III	III	III
<b>Environmental hazards:</b>	No	No	No
<b>Special precautions for user:</b>	See section 2.2	See section 2.2	See section 2.2
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	IBC03	IBC03	IBC03

## Section 15 REGULATORY INFORMATION

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

EINECS/ELINCS/NLP: Listed

DSL/NDSL: Listed

TSCA: Listed

KECI: Listed

IECSC: Listed

ENCS: Listed

PICCS: Listed

AICS: Listed

Chemical Safety Assessment Carried Out? YES

NO

## Section 16 OTHER INFORMATION

### 16.1 Indication of changes

Version 2.1 amended by EU No 453/2010

### 16.2 Relevant R- phrases (number and full text):

R10 Flammable.

R22 Harmful if swallowed.

### 16.3 Legal Disclaimer:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The company shall not be held liable for any damage resulting from handling or from contact with the above product.

- Exposure Scenario shall be annexed to this SDS after REACH registration is completed -