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

Substance name : n-HEPTANOIC ACID

Recommended use : Lubrification.
Additive for :
Paint

Supplier : Arkema France
POLYMERES TECHNIQUES
420 rue d'Estienne d'Orves
92705 Colombes Cedex, France
Téléphone : +33 (0)1 49 00 80 80
Télécopie : +33 (0)1 49 00 83 96
http://www.arkema.com

E-mail address : pars-drp-fds@arkema.com

Emergency telephone : **+33 1 49 00 77 77**

2. HAZARDS IDENTIFICATION

Most important hazards:

Potential health effects : Harmful by inhalation.
Causes burns.
Risk of serious damage to eyes.

Physical and chemical hazards : Thermal decomposition giving toxic products
Decomposition products: See chapter 10

Specific hazards / EC : **CORROSIVE**

Causes burns.
Harmful by inhalation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name of the substance : n-HEPTANOIC ACID

Components :

Chemical Name *)	EC-No.	CAS-No.	Concentration	Classification
Heptanoic acid	203-838-7	111-14-8	> 98 %	C; R34

*) See chapter 14 for Proper Shipping Name

For the full text of the R phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice : Under the shower
Take off immediately all contaminated clothing including shoes

Inhalation : Inhalation of vapours/mists
Move to fresh air.
Oxygen or artificial respiration if needed.
Keep under medical surveillance.
In case of problems :
Hospitalise.

Skin contact	:	Wash immediately, abundantly and thoroughly with water. In case of extensive burns, hospitalize.
Eye contact	:	Wash well-open eyes immediately, abundantly and thoroughly with water. Consult an ophthalmologist immediately.
Ingestion	:	Do not induce vomiting, rinse mouth and lips with plenty of water if the subject is conscious, then hospitalize
Protection of first-aiders	:	In case of insufficient ventilation, wear suitable respiratory equipment. Protective suit

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Foam Dry powder Carbon dioxide (CO2)
Unsuitable extinguishing media	:	Water
Specific hazards	:	Thermal decomposition giving toxic products Carbon monoxide Carbon dioxide (CO2)
Specific methods	:	Cool containers / tanks with water spray. Remove all sources of ignition. Ensure a system for the rapid emptying of containers In case of fire nearby, remove exposed containers.
Special protective equipment for fire-fighters	:	Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	:	Prohibit contact with skin and eyes and inhalation of vapours. Use personal protective equipment. In case of insufficient ventilation, wear suitable respiratory equipment
Environmental precautions	:	Do not release into the environment Do not let product enter drains. Dam up with sand or inert earth (do not use combustible materials)
Recovery	:	Pump into a labelled inert emergency tank Absorb the remainder with an inert absorbent material Sand Earth
Neutralisation	:	Neutralize with sodium carbonate
Elimination	:	Destroy absorbed product by incineration at an approved waste disposal site only In accordance with local and national regulations.

7. HANDLING AND STORAGE

Handling

Technical measures/Precautions	:	Storage and handling precautions applicable to products: Liquid Corrosive Harmful Provide appropriate exhaust ventilation at machinery. Provide showers, eye-baths. Provide self-contained breathing apparatus nearby.
Safe handling advice	:	Avoid splashing when handling In case of insufficient ventilation, wear suitable respiratory equipment

Storage

Technical measures/Storage conditions	:	Keep containers tightly closed in a cool, well-ventilated place. Prevent water from entering storage areas Provide a catch-tank and anti-corrosion protected electrical equipment in a bunded area

Incompatible products	:	Strong oxidizing agents strong bases
Packaging material		
Recommended	:	Drums coated inside with resin Stainless steel
Materials to avoid	:	Ordinary steel Copper and copper alloys

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

General protective measures	:	Ensure sufficient air exchange and/or exhaust in work areas (product handled when hot)
Personal protective equipment		
Respiratory protection	:	Low concentrations or short activity: Full mask A2B2E2K2 Respirator with combination filter for vapour/particulate (EN 141).
Hand protection	:	Acid resistant gloves PVC gloves According to permeation index EN 374: 6 (time elapsed > 480 mins)
Eye protection	:	Safety glasses with side-shields
Skin and body protection	:	Protective clothing (cotton) Safety shoes Intervention at incident: Boots
Hygiene measures	:	Product handled when hot : Prohibit contact with skin and eyes and inhalation of vapours. When using do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C)	:	liquid
Colour	:	colourless
Odour	:	characteristic
pH	:	acidic
Boiling point/boiling range	:	220 °C
Melting point/range	:	-8 °C
Flash point	:	118 °C closed cup (Method: Standard NF T 60 103)
Autoignition temperature	:	380 °C
Vapour pressure	:	0,01349 hPa (20 °C) 0,4498 hPa (60 °C)
Vapour density	:	5,8 kg/m3 (220 °C)
Density	:	920 kg/m3 (20 °C)
Solubility:		

- Water solubility	:	3 g/l
- Solubility in other solvents	:	Soluble in most organic solvents
Partition coefficient: n-octanol/water	:	log Kow : 2,42 (measured)
Henry constant	:	65,8E-03 $Pa.m^3/mol$

10. STABILITY AND REACTIVITY

Conditions to avoid	:	Avoid storing in moist and warm conditions
Hazardous reactions	:	Product stable in the absence of moisture
Materials to avoid	:	Strong oxidizing agents strong bases
Hazardous decomposition products	:	Thermal decomposition giving toxic products Carbon monoxide Carbon dioxide (CO2)
Further information	:	The product is stable under normal handling and storage conditions

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Inhalation	:	• In animals: Harmful by inhalation. LC50/4 h/rat: approx. 5 mg/l
Ingestion	:	Risk of burns to the mouth, oesophagus and stomach • In animals: Slightly harmful by ingestion LD50/rat: 7.000 mg/kg
Dermal	:	• In animals: Slightly harmful in contact with skin LD50/rat: > 2.000 mg/kg

Local effects

Inhalation	:	Risk of irritation of eyes and respiratory system
Skin contact	:	• In animals: Corrosive to skin Exposure time: 1 h (rabbit) (after occlusive contact)
Eye contact	:	May cause irreversible eye damage.

Sensitisation

Skin contact	:	• In animals: Not a skin sensitizer guinea pig
Repeated dose toxicity	:	- By oral route: 28 d / rat Hyperkeratosis by local irritant effect on gastric mucosa NOAEL: 1750 mg/kg/d

Specific effects

Genotoxicity

In vitro	:	Overall inactive 'in vitro' tests

Reproductive toxicity

Foetal development	:	- By oral route/rat Experimental effects on animals : Absence of toxic effects for foetal development.

12. ECOLOGICAL INFORMATION

Mobility : In aqueous environment:
Non volatile:
In soils and sediments:
Moderate adsorption:
log Koc 1,2 - 1,5 (estimation)

Henry constant: 65,8E-03 Pa.m^3/mol

Known distribution to environmental compartments
Water: 76,2 %
Air: 5,64 %
Soil: 17,7 %
sediment: 0,39 %
(Calculation according Mackay, Level I)

Persistence and degradability
In water : Readily biodegradable:
42 % after 24 h

98 % after 11 d

Bioaccumulation : Slightly bioaccumulable
log Kow : 2,42 (measured)

Aquatic toxicity

Acute toxicity
Fish : LC50, 96 h (Pimephales promelas) : > 92 mg/l
(OECD Guideline 203)

Aquatic invertebrates : Slightly harmful to daphnia
EC50, 48 h (Daphnia magna (Water flea)) : = 850 mg/l

13. DISPOSAL CONSIDERATIONS

Disposal of product : Do not dispose of waste into sewer.
Neutralize with sodium carbonate
Destroy the product by incineration (in accordance with local and national regulations)

Disposal of packaging : Do not release into the environment
Destroy packaging by incineration at an approved waste disposal site
In accordance with local and national regulations.

14. TRANSPORT INFORMATION

ADR

UN Number	:	3265
Proper shipping name	:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (N-HEPTANOIC ACID)
Class	:	8
Packaging group	:	II
Classification Code	:	C3
Hazard identification No	:	80
Label	:	8

RID

UN Number	:	3265
Proper shipping name	:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (N-HEPTANOIC ACID)
Class	:	8
Packaging group	:	II
Classification Code	:	C3
Hazard identification No	:	80
Label	:	8

IATA Cargo

UN Number	:	3265
Proper shipping name	:	Corrosive liquid, acidic, organic, n.o.s. (n-Heptanoic acid)
Class	:	8
Packaging group	:	II
Label	:	8

IATA Passenger

UN Number	:	3265
Proper shipping name	:	Corrosive liquid, acidic, organic, n.o.s. (n-Heptanoic acid)
Class	:	8
Packaging group	:	II
Label	:	8

IMDG

UN Number	:	3265
Proper shipping name	:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (N-HEPTANOIC ACID)
Class	:	8
Packaging group	:	II
Label	:	8
EmS Number	:	F-A, S-B
Marine Pollutant	:	no

15. REGULATORY INFORMATION

EEC DIRECTIVE

Safety data sheets : according to Regulation (EC) No. 1907/2006

EC classification / labelling

Dangerous Substances : Directive 67/548/EEC

Symbol(s)
C **Corrosive**

R-phrase(s)
R34 Causes burns.
R20 Harmful by inhalation.

S-phrase(s)
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of water.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Hazardous components which must be listed on the label:
Heptanoic acid

No. in ANNEXE 607-196-00-2
EC Nr 203-838-7

INVENTORIES :

EINECS:	Conforms to
TSCA:	Conforms to
AICS:	Conforms to
DSL:	All components of this product are on the Canadian DSL list.
ENCS (JP):	Conforms to
KECI (KR):	Conforms to
PICCS (PH):	Conforms to
IECSC (CN):	Conforms to

16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R20 Harmful by inhalation.
R34 Causes burns.

Further information : This product must be handled only by personnel well informed of safety conditions
When used in formulations, contact us for labelling

This information applies to the PRODUCT AS SUCH and conforming to specifications of ARKEMA.
In case of formulations or mixtures, it is necessary to ascertain that a new danger will not appear.
The information contained is based on our knowledge of the product, at the date of publishing and it is given quite sincerely.
Users are advised of possible additional hazards when the product is used in applications for which it was not intended. This sheet shall only be used and reproduced for prevention and security purposes.
The references to legislative, regulatory and codes of practice documents cannot be considered as exhaustive.
It is the responsibility of the person receiving the product to refer to the totality of the official documents concerning the use, the possession and the handling of the product.
It is also the responsibility of the handlers of the product to pass on to any subsequent persons who will come into contact with the product (usage, storage, cleaning of containers, other processes) the totality of the information contained within this safety data sheet and necessary for safety at work, the protection of health and the protection of environment.

NB: In this document the numerical separator of the thousands is the "." (point), the decimal separator is "," (comma).

Vertical lines in the left hand margin indicate an amendment from the previous version.