SAFETY DATA SHEET

Creation Date 14-Sep-2009 **Revision Date** 14-Sep-2009 **Revision Number** *1*

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

Product Name **n-Heptane**
Cat No. **411250000; 411255000**
Synonyms Normal heptane.; n-Heptane
Recommended Use Laboratory chemicals

Company Acros Organics BVBA
Janssen Pharmaceuticalaan 3a
2440 Geel, Belgium

Emergency Telephone Number

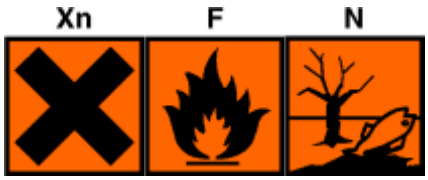
For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99
Emergency Number, US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

2. HAZARDS IDENTIFICATION

The preparation is classified as dangerous in accordance with Directive 1999/45/EC.



R -phrase(s)
R11 - Highly flammable
R38 - Irritating to skin
R65 - Harmful: may cause lung damage if swallowed
R67 - Vapors may cause drowsiness and dizziness
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	Weight %	EC No.	Classification

Heptane (n-) 142-82-5	>95	EEC No. 205-563-8	F;R11 Xn;R65 Xi;R38 R67 N;R50/53

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

4. FIRST AID MEASURES

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Ingestion Do not induce vomiting. Call a physician or Poison Control Center immediately.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Cool closed containers exposed to fire with water spray.

Extinguishing media which must not be used for safety reasons
No information available.

Specific Hazards Arising from the Chemical
Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

Flash Point -4°C / 24.8°F

Method No information available.

Autoignition Temperature 215°C / 419°F

Explosion Limits
Lower 1 vol%
Upper 7 vol%

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges.

Environmental Precautions Should not be released into the environment.

Methods for Containment and Clean Up Soak up with inert absorbent material Keep in suitable and closed containers for disposal Remove all sources of ignition Use spark-proof tools and explosion-proof equipment

7. HANDLING AND STORAGE

Handling Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Use explosion-proof equipment. Take precautionary measures against static discharges.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Flammables area. Keep away from heat and sources of ignition.

Specific use(s) No information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits

Component	European Union	The United Kingdom	France	Spain	Germany
Heptane (n-)			VME: 1668 mg/m^3 VME: 400 ppm VLCT: 2085 mg/m^3 VLCT: 500 ppm	VLA-ED: 2085 mg/m^3 VLA-ED: 500 ppm	

Component	Italy	Portugal	The Netherlands	Finland	Austria
Heptane (n-)	TWA: 500 ppm TWA: 2085 mg/m^3	STEL: 500 ppm TWA: 400 ppm	STEL: 1600 mg/m^3 TWA: 1200 mg/m^3	TWA: 300 ppm TWA: 1200 mg/m^3 STEL: 2100 mg/m^3 STEL: 500 ppm	STEL: 2000 ppm STEL: 8000 mg/m^3 MAK: 500 ppm MAK: 2000 mg/m^3

Component	Switzerland	Poland	Norway	Ireland	Denmark	Australia
Heptane (n-)	STEL: 1600 mg/m^3 STEL: 400 ppm MAK: 1600 mg/m^3 MAK: 400 ppm	NDSCh: 2000 mg/m^3 NDS: 1200 mg/m^3	TWA: 200 ppm TWA: 800 mg/m^3	TWA: 400 ppm TWA: 1600 mg/m^3	TWA: 820 mg/m^3 TWA: 200 ppm	STEL: 2050 mg/m^3 STEL: 500 ppm TWA: 400 ppm TWA: 1640 mg/m^3

Occupational exposure controls

Engineering Measures	Use only under a chemical fume hood Ensure that eyewash stations and safety showers are close to the workstation location Use explosion-proof electrical/ventilating/lighting/equipment

Personal Protective Equipment

Respiratory Protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Eye Protection	Tightly fitting safety goggles
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Hand Protection	Protective gloves

Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice
Environmental exposure controls	No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Colorless
Odor	Petroleum distillates
pH	No information available.
Vapor Pressure	48 mbar @ 20 °C
Vapor Density	3.5 (Air = 1.0)
Viscosity	0.4 mPa s at 20 °C
Boiling Point/Range	98°C / 208.4°F
Melting Point/Range	-91°C / -131.8°F
Flash Point	-4°C / 24.8°F
Explosion Limits	
Lower	1 vol%
Upper	7 vol%
Evaporation Rate	2.8 (Butyl Acetate = 1.0)
Water Solubility	practically insoluble
Specific Gravity	0.683
Molecular Formula	C7 H16
Molecular Weight	100.2

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Excess heat.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO_2)

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions . None under normal processing..

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Heptane (n-)	5000 mg/kg (Mouse)	3000 mg/kg (Rabbit)	103 g/m³ (Rat) 4 h

Chronic Toxicity

Carcinogenicity There are no known carcinogenic chemicals in this product

Sensitization No information available.

Neurological Effects No information available.

Mutagenic Effects No information available.

Reproductive Effects No information available.

Developmental Effects No information available.

Target Organs Central nervous system (CNS), Skin, Respiratory system.

Other Adverse Effects See actual entry in RTECS for complete information.

12. ECOLOGICAL INFORMATION

Ecotoxicity

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Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Heptane (n-)				EC50: >10 mg/L/24h

Persistence and Degradability No information available

Bioaccumulative Potential No information available.

Mobility No information available.

Component	log Pow
Heptane (n-)	4.66

13. DISPOSAL CONSIDERATIONS

Waste from Residues / Unused Products Dispose of in accordance with local regulations

Contaminated Packaging Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

IMDG/IMO

UN-No	UN1206
Hazard Class	3
Packing Group	II
Proper Shipping Name	Heptanes

ADR

UN-No	UN1206
Hazard Class	3
Packing Group	II
Proper Shipping Name	Heptanes

IATA

UN-No	UN1206
Hazard Class	3
Packing Group	II
Proper Shipping Name	Heptanes

15. REGULATORY INFORMATION

The preparation is classified as dangerous in accordance with Directive 1999/45/EC

Labelling

Xn

R -phrase(s)
R11 - Highly flammable
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S -phrase(s)
S 9 - Keep container in a well-ventilated place
S16 - Keep away from sources of ignition. No smoking
S29 - Do not empty into drains
S33 - Take precautionary measures against static discharges
S60 - This material and its container must be disposed of as hazardous waste
S61 - Avoid release to the environment. Refer to special instructions/safety data sheets
S62 - If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label

International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Heptane (n-)	205-563-8	-		T	X	-	X	X	X	X	KE-18271 X

16. OTHER INFORMATION

Text of R phrases mentioned in Section 2-3
R11 - Highly flammable
R38 - Irritating to skin
R65 - Harmful: may cause lung damage if swallowed
R67 - Vapors may cause drowsiness and dizziness
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Prepared By	Regulatory Affairs
Creation Date	14-Sep-2009
Revision Date	14-Sep-2009

Revision Summary	"***", and red text indicates revision
Restrictions on use	No information available.
Training advice	No information available.
Literary reference	No information available.

Disclaimer

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End of Safety Data Sheet