

SAFETY DATA SHEET

for

HEPTANE

the main ingredient in Silk & Clean

stain removing tissues

## SAFETY DATA SHEET

PRODUCT NAME: EXXSOL HEPTANE

PAGE 1

SDS NUMBER: HDHE-C-05231

REVISION: 1 December 2001

## 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

IDENTIFICATION OF THE SUBSTANCE: EXXSOL HEPTANE

This is a petroleum-derived complex substance

CHEMICAL FAMILY: Aliphatic, cycloparaffinic hydrocarbons

PRODUCT DESCRIPTION:

Clear colourless liquid

SUPPLIER: ExxonMobil Chemical Norden AB  
 BOX 1035  
 S405 22 GÖTEBORG (SVERIGE)  
 Telephone: 46 31 63 82 00  
 Facsimile: 46 31 15 50 08

This SDS has been printed in the English language and meets the EU Safety Data Sheet requirements for this product. No country specific information is included.

## 2 COMPOSITION/INFORMATION ON INGREDIENTS

EINECS NUMBER: 295-434-2

CAS NUMBER: 92045-53-9

| HEALTH HAZARDOUS COMPONENTS | SYMBOL/R-PHRASE<br>OR OEL | Wt%  |
|-----------------------------|---------------------------|------|
| HEPTANE AND ISOMERS         | Xn, Xi, R38, R65, R67     | 83.0 |
| METHYLCYCLOHEXANE           | Xn, Xi, R38, R65, R67     | 17.0 |

Nota H applies to the product or one or more of its components. Annex 1  
 Nota P of Annex 1 applies to the product or one or more of its components.

Exxon Mobil Corporation includes ExxonMobil Chemical Company and the ExxonMobil  
 Chemical Affiliates.

PRINT DATE: 28 December 2001

Cont.

# SAFETY DATA SHEET

ExxonMobil Chemical

PRODUCT NAME: EXXSOL HEPTANE

PAGE 2

SDS NUMBER: HDHE-C-05231

REVISION: 1 December 2001

## 3 HAZARDS IDENTIFICATION

### HEALTH HAZARDS

Irritating to skin  
Harmful : may cause lung damage if swallowed.  
Vapours may cause drowsiness and dizziness

### ENVIRONMENTAL HAZARDS

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### PHYSICAL AND CHEMICAL HAZARDS / FIRE AND EXPLOSION HAZARDS

- o Extreme hazard. Leaks of gas or spills of liquid can readily form flammable mixtures at temperatures at or above the flash point.
- o Static Discharge. Product can accumulate static charges which can cause an incendiary electrical discharge.

## 4 FIRST AID MEASURES

### INHALATION:

- o Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.

### SKIN CONTACT:

- o Flush with large amounts of water; use soap if available.
- o Remove grossly contaminated clothing, including shoes, and launder before reuse.

### EYE CONTACT:

- o Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.

### INGESTION:

- o If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention.

**PRODUCT NAME:** EXXSOL HEPTANE

PAGE 3

**SDS NUMBER:** HDHE-C-05231**REVISION:** 1 December 2001**5 FIRE-FIGHTING MEASURES****FIRE FIGHTING PROCEDURES:**

- o Use water spray to cool fire exposed surfaces and to protect personnel. Shut off "fuel" to fire. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect men attempting to stop a leak.
- o Either allow fire to burn under controlled conditions or extinguish with foam or dry chemical. Try to cover liquid spills with foam.

**SPECIAL FIRE PRECAUTIONS:**

- o See also Section 4 "FIRST AID MEASURES" as well as Section 10 "STABILITY AND REACTIVITY".

**HAZARDOUS COMBUSTION PRODUCTS:**

No unusual

**6 ACCIDENTAL RELEASE MEASURES****LAND SPILL:**

- o Eliminate sources of ignition. Warn occupants of downwind areas of fire and explosion hazard. Prevent liquid from entering sewers, watercourses, or low areas.
- o Keep public away. Shut off source if possible to do so without hazard. Advise authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation. Take measures to minimize the effect on the ground water.
- o Contain spilled liquid with sand or earth.
- o Recover by pumping (use an explosion proof or hand pump) or with a suitable absorbent. If liquid is too viscous for pumping, scrape up with shovels or pails and place in suitable containers for recycle or disposal.
- o Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.
- o See Section 4 "FIRST AID MEASURES" as well as Section 10 "STABILITY AND REACTIVITY".

# SAFETY DATA SHEET

ExxonMobil Chemical

PRODUCT NAME: EXXSOL HEPTANE

PAGE 4

SDS NUMBER: HDHE-C-05231

REVISION: 1 December 2001

## WATER SPILL:

- o Eliminate sources of ignition. Warn occupants and shipping in downwind areas of fire and explosion hazard and request them to stay clear.
- o Notify port or relevant authority and keep public away. Shut off source if possible to do so without hazard. Confine if possible.
- o Remove from surface by skimming or with suitable absorbents. If allowed by local authorities and environmental agencies sinking and/or suitable dispersants may be used in non-confined waters.
- o Consult an expert on disposal of any recovered material and ensure conformity to local disposal regulations.
- o See also Section 4 "FIRST AID MEASURES" and Section 10 "STABILITY AND REACTIVITY".

## 7 HANDLING AND STORAGE

STORAGE TEMPERATURE (DegC) : Ambient

TRANSPORT TEMPERATURE (DegC) : Ambient

LOADING/UNLOADING TEMPERATURE (DegC) :

VISCOSITY (cSt) : 0.64 at 25 deg C

STORAGE/TRANSPORT PRESSURE (kPa) : Atmospheric

ELECTROSTATIC ACCUMULATION HAZARD? Yes, use proper grounding procedure

### USUAL SHIPPING CONTAINERS:

Tank trucks, rail cars, barges or drums

MATERIALS AND COATINGS SUITABLE: Carbon steel

Stainless steel

Polyethylene

Polypropylene

Polyester

Teflon

MATERIALS AND COATINGS UNSUITABLE: Natural rubber

Butyl rubber

E P D M

Polystyrene

Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.

## SAFETY DATA SHEET

PRODUCT NAME: EXXSOL HEPTANE

PAGE 5

SDS NUMBER: HDHE-C-05231

REVISION: 1 December 2001

**STORAGE / HANDLING, GENERAL NOTES**

- o Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated place away from incompatible materials.
- o DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight.
- o Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or grounding procedures.
- o DO NOT pressurize, cut, heat, or weld containers. Empty product containers may contain product residue. DO NOT reuse empty containers without commercial cleaning or reconditioning.

**ADDITIONAL WARNINGS**

Container remains hazardous when empty. Continue to observe all precautions.

**8 EXPOSURE CONTROLS/PERSONAL PROTECTION****ENGINEERING CONTROL MEASURES / VENTILATION**

The use of mechanical dilution ventilation is recommended whenever this product is used in a confined space, is heated above ambient temperatures or otherwise to maintain ambient concentration below the recommended threshold exposure limits. Use explosion-proof ventilation equipment.

**OCCUPATIONAL EXPOSURE LIMITS**

ExxonMobil recommends, for total hydrocarbons, based on composition and using the Reciprocal Calculation Procedure (RCP):

EXXSOL HEPTANE;

TWA: 1400 mg/m<sup>3</sup> (346 ppm), ExxonMobil (2000).

This product is a complex substance which contains the following component (s) with a recognised or recommended OEL value:

Heptane;

TWA: 400 ppm (1640 mg/m<sup>3</sup>) STEL: 500 ppm (2050 mg/m<sup>3</sup>), for n-Heptane, ACGIH (2000).

# SAFETY DATA SHEET

ExxonMobil Chemical

PRODUCT NAME: EXXSOL HEPTANE

PAGE 6

SDS NUMBER: HDHE-C-05231

REVISION: 1 December 2001

## PERSONAL PROTECTION

### GENERAL ADVICE

The use and choice of Personal Protection equipment is related to the hazard of the product, the workplace, and the way the product is handled. In general, we recommend as a minimum safety precaution that safety glasses with side-shields and workclothes protecting arms, legs and body be used. In addition, any person visiting an area where this product is handled or processed should at least wear safety glasses with side-shields.

### SPECIAL ADVICE

Based on and limited to ExxonMobil Chemical's experience of this product as such, the following special advice is believed to provide satisfactory protection for the industrial user or handler.

### RESPIRATORY PROTECTION

Where concentrations in air may exceed the limits given in this section, it is recommended to use a half face filter mask to protect from overexposure by inhalation. Suitable filter material depends on the amount and type of chemicals being handled in the workplace, but filter material of type "A" or similar may be considered for use.

### HAND PROTECTION

When handling this product, it is recommended to wear chemical resistant gloves. The choice of suitable protective gloves depends on work conditions and what chemicals are handled, but we have positive experience with gloves made of Nitrile. Gloves should be replaced immediately if sign of degradation is observed.

### EYE PROTECTION

See general advice.

### SKIN/BODY PROTECTION

See general advice.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

These are indicative values only. Please refer also to the product specification sheet.

PHYSICAL STATE: Liquid

PRINT DATE: 28 December 2001

Cont.

## SAFETY DATA SHEET

PRODUCT NAME: EXXSOL HEPTANE

PAGE 7

SDS NUMBER: HDHE-C-05231

REVISION: 1 December 2001

FORM/COLOUR: Clear colourless liquid.  
 ODOR: Faint aliphatic hydrocarbon odour

PH ( ) ( DegC):

FREEZ./MELT/ POINT: &lt; -60 DegC ASTM D97

BOILING POINT RANGE: between 94 and 99 DegC ASTM D1078

FLASHPOINT (TCC ASTM D56): -4 DegC

AUTOIGNITION TEMPERATURE: &gt; 200 DegC

EXPLOSIVE LIMITS (in air): between 1.1 and 7 Vol%

VAPOR PRESSURE (20 DegC): 5.6 kPa

VAPOR PRESSURE (38 DegC): 20.5 kPa

VAPOR PRESSURE (50 DegC): 31.9 kPa

DENSITY (15 DegC): 0.717 kg/dm3 ASTM D4052

SPECIFIC GRAVITY ( ):

VAPOR DENSITY (101.3 kPa/air=1): &gt; 1.00

SOLUBILITY IN WATER (20 DegC): &lt; 1.00 Wt%

IS MATERIAL HYGROSCOPIC: No

VISCOSITY (25 DegC): 0.64 mm2/s ASTM D445

(40 DegC): 0.42 mm2/s Calculated

EVAPORATION RATE (n-Bu Acetate= 1): 5.400 EC-M-F01

COEFF. OF THERMAL EXPANSION (Liq.): 0.00121 DegC

MOLECULAR WEIGHT: 99

## 10 STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION? No

CONDITIONS TO AVOID POLYMERIZATION: Not Applicable

STABILITY: Stable

CONDITIONS TO AVOID INSTABILITY: Not Applicable

MATERIALS AND CONDITIONS TO AVOID (INCOMPATIBILITY):

Strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS:

None

**PRODUCT NAME:** EXXSOL HEPTANE

PAGE 8

**SDS NUMBER:** HDHE-C-05231**REVISION:** 1 December 2001**11 TOXICOLOGICAL INFORMATION****ACUTE:****INHALATION:**

Vapor concentrations above recommended exposure levels may be irritating to the eyes and the respiratory tract, may cause headaches and dizziness, could be anesthetic and may have other central nervous system effects.

**SKIN CONTACT:**

- o Low order of toxicity.
- o Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

**EYE CONTACT:**

- o Will cause eye discomfort, but will not injure eye tissue.

**INGESTION:**

- o Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary edema.
- o Minimal toxicity.

Additional information is available on special request

**12 ECOLOGICAL INFORMATION****ENVIRONMENTAL MOBILITY**

This substance is highly volatile and will rapidly evaporate to the air if released into the water.

**ENVIRONMENTAL DEGRADABILITY**

This substance biodegrades rapidly and is "readily" biodegradable according to OECD guidelines.

This substance can degrade rapidly in air.

This substance is expected to be removed in a wastewater treatment facility.

Although data exist to show that this substance is not expected to persist in the aquatic environment, the European Classification rules require that it be classified as potentially causing long-term adverse effects in the aquatic environment.

# SAFETY DATA SHEET

ExxonMobil Chemical

PRODUCT NAME: EXXSOL HEPTANE

PAGE 9

SDS NUMBER: HDHE-C-05231

REVISION: 1 December 2001

## ECOTOXICITY AND BIOACCUMULATION

Based upon data for a similar substance or estimated data.  
Expected to be toxic to aquatic organisms.

## 13 DISPOSAL CONSIDERATIONS

The following advice only applies to the product as supplied.  
Combination with other materials may well indicate another route of disposal. If in doubt, contact local ExxonMobil Chemical Company supplier or local Authorities.

Empty drums should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor.

Care should in any case be taken to ensure compliance with EC, national and local regulations.

This product is NOT suitable for disposal by either landfill or via municipal sewers, drains, natural streams or rivers.

This product is ashless and can be burned directly in appropriate equipment.

## 14 TRANSPORT INFORMATION

### LAND (railroad/road - RID/ADR)

CLASS: 3

PG: II

UN NUMBER: 1206

CLASSIFICATION CODE: F1

HAZARD ID NUMBER: 33 LABELS: 3

TRANSPORT DOCUMENT NAME:

UN 1206, HEPTANES (n-heptane & isoheptanes), CLASS 3, PG III ADR

EMERGENCY ACTION CODE: 3YE

TREMCARD PRODUCT NAME:

CEFIC TC Reference: 30S1206

ExxonMobil TC Reference: 30S1206

### INLAND WATERWAYS (ADN/ADNR)

CLASS: 3,3b

SUBSTANCE ID NUMBER: 3295

TRANSPORT DOCUMENT NAME:

UN 3295, HYDROCARBONS, LIQUID, N.O.S. (n-heptane & isoheptanes),

CLASS 3,3b, ADNR

PRINT DATE: 28 December 2001

Cont.

**SAFETY DATA SHEET****ExxonMobil Chemical****PRODUCT NAME:** EXXSOL HEPTANE

PAGE 10

**SDS NUMBER:** HDHE-C-05231**REVISION:** 1 December 2001**SEA (IMDG)****CLASS:** 3**PG:** II**UN NUMBER:** 1206**MARINE POLLUTANT:** NO**EMS NUMBER:** 3-07**RISK LABEL:** 3**SUBSIDIARY RISK:****TRANSPORT DOCUMENT NAME:**

HEPTANES (n-heptane &amp; isheptanes), Class 3, UN 1206, PG II , (-4 DegC c.c.)

**AIR (ICAO/IATA)****CLASS:** 3**PG:** II**UN NUMBER:** 1206**PROPER SHIPPING NAME:**

HEPTANES (n-heptane &amp; isheptanes)

**15 REGULATORY INFORMATION****CLASSIFICATION AND LABELLING ACCORDING TO EC DIRECTIVES****CLASSIFICATION/SYMBOL:** HIGHLY FLAMMABLE/F**CLASSIFICATION/SYMBOL:** HARMFUL/Xn**CLASSIFICATION/SYMBOL:** DANGEROUS FOR THE ENVIRONMENT/N**GOVERNING DIRECTIVE:**

Dangerous Substances Directive 67/548/EC, as modified.

**LABEL NAME:**

HEPTANE AND ISOMERS

**NATURE OF SPECIAL RISK**

R11 Highly flammable

R38 Irritating to skin

R51/53

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65 Harmful : may cause lung damage if swallowed.

R67 Vapours may cause drowsiness and dizziness

Nota H applies to the product or one or more of its components. Annex 1

Nota P of Annex 1 applies to the product or one or more of its components.

**SAFETY ADVICE**

S09 Keep container in a well ventilated place

PRINT DATE: 28 December 2001

Cont.

# SAFETY DATA SHEET

ExxonMobil Chemical

PRODUCT NAME: EXXSOL HEPTANE

PAGE 11

SDS NUMBER: HDHE-C-05231

REVISION: 1 December 2001

S16 Keep away from sources of ignition-No Smoking  
S23 Do not breathe gas/fumes/vapour/spray  
S24 Avoid contact with skin  
S33 Take precautionary measures against static discharges  
S43A In case of fire use sand, earth, chemical powder or foam  
S57

Use appropriate container to avoid environmental contamination.

S60

This material and/or its container must be disposed of as hazardous waste.

S62

If swallowed, do not induce vomiting : seek medical advice immediately and show this container or label.

## 16 OTHER INFORMATION

### REVISION SUMMARY:

Since 20 July 2001, this SDS has been revised in Section(s):

14

This 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. Such information is to the best of ExxonMobil Chemical Company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.

PRINT DATE: 28 December 2001