MATERIAL SAFETY DATA SHEET (MSDS)

Click here for the MSDS English version

MATERIAL SAFETY DATA SHEET

EM SCIENCE

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer.....:
EM SCIENCE
A Division of EM Industries
P.O. Box 70
480 Democrat Road
Gibbstown, N.J. 08027

Information Phone Number.: 856-423-6300
Hours: Mon. to Fri. 8:30-5
Chemtrec Emergency Number: 800-424-9300
Hours: 24 hrs a day

Catalog Number(s)

HX0298 HX0263 HX0264 HX0266 HX0267 HX0268 HX0290
HX0288 HX0318 NX07 HX0280P HX0292 HX0280P HX0286S
HX0286T HX0280PA HX0280P 1.50KG

Product Name:
Hexane
Synonyms:
Hexane
Chemical Family:
Saturated hydrocarbon
Formula:
C_6H_{14}
Molecular Weight.:
86.18

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS #	Appr %
Hexane	110-54-3	85-98%

Also contains methylpentanes 0-5% CAS# unknown.

Approx. % wt/wt

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
EXTREMELY FLAMMABLE LIQUID AND VAPOR.
HARMFUL IF INHALED OR SWALLOWED.
May Cause Damage To Kidneys, Nerves, and Respiratory System.
IRRITATING TO SKIN, EYES AND MUCOUS MEMBRANES.

Appearance:
Clear, colorless liquid, characteristic odor

POTENTIAL HEALTH EFFECTS (ACUTE AND CHRONIC)

Symptoms of Exposure:
Toxic by ingestion and inhalation. Vapor inhalation causes irritation of nasal and respiratory passages, headache, dizziness, nausea, central nervous system depression. N-hexane is neurotoxic. Chronic overexposure can cause severe nerve damage. Mainly responsible for the (chronic) toxicity is the metabolite 2,5-hexandion. In humans, this diketone is formed as a main metabolite, which the rat mostly metabolizes to 2-hexanol. Consequently the LD50 value of the rat with 28710 mg/kg is not suitable for the toxicity in humans. In the rat, a neurotoxic effect shows up only above a concentration of 200 mits.u.m., while the human organism can react with dysneuropathic symptoms at 100 mits.u.m. Causes irritation on contact with skin or eyes. May cause damage to kidneys.

Medical Cond. Aggravated by Exposure:
Kidney, respiratory and CNS conditions

Routes of Entry:
Inhalation, ingestion or skin contact.

Carcinogenicity:
The material is not listed (IARC, NTP, OSHA) as cancer causing agent.

4. FIRST AID MEASURES

Emergency First Aid:
GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE.
Skin: Wash thoroughly with soap and water.
Eyes: Immediately flush thoroughly with water for at least 15 minutes.
Inhalation: Remove to fresh air, give artificial respiration if breathing has stopped.
Ingestion: Do not induce vomiting; get immediate medical attention.

5. FIRE FIGHTING MEASURES

Flash Point (F): T F (cc)
Flammable Limits LEL (%): 1.20
Flammable Limits UEL (%): 7.50
Extinguishing Media:
Use "alcohol" foam, carbon dioxide, dry chemical.

Fire Fighting Procedures:
Wear self-contained breathing apparatus.

Fire & Explosion Hazards:
Dangerous fire and explosion hazard. Vapor can travel distances to ignition source and flash back.

6. ACCIDENTAL RELEASE MEASURES

Spill Response:
Evacuate the area of all unnecessary personnel. Wear suitable protective equipment listed under Exposure / Personal Protection. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Contain the release and eliminate its source. If this can be done without risk. Take up and containerize for proper disposal as described under Disposal. Comply with Federal, State, and local regulations on reporting releases. Refer to Regulatory Information for reportable quantity and other regulatory data.
EM SCIENCE recommends Spill-X absorbent agents for various types of spills. Additional information on the Spill-X products can be provided through the EM SCIENCE Technical Service Department (856) 423-6300. The following EM SCIENCE Spill-X absorbent is recommended for this product

SX0863 Solvent Spill Treatment Kit

7. HANDLING AND STORAGE

Handling & Storage:
Keep container closed. Store in a cool area away from ignition sources and oxidizers. Do not breathe vapor. Do not get in eyes, on skin, or on clothing. Electrically ground all equipment when handling this product. Retained residue may make empty containers hazardous; use caution!

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT:
Ventilation, Respiratory Protection, Protective Clothing, Eye Protection:
Respiratory Protection (if workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative-pressure type) under specified conditions (see your safety equipment supplier). Engineering and/or administrative controls should be implemented to reduce exposure. Material should be handled or transferred in an approved fume hood or with adequate ventilation. Protective gloves should be worn to prevent skin contact (Nitrile or equivalent) Safety glasses with side-shields should be worn at all times.

Work/Hygienic Practices:
Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available.

EXPOSURE GUIDELINES

OSHA - PEL:

Component	TWA PPM	TWA MG/M3	STEL PPM	STEL MG/M3	CL PPM	CL MG/M3	Skin
Hexane	50	180					

ACGIH - TLV:

Component	TWA PPM	TWA MG/M3	STEL PPM	STEL MG/M3	CL PPM	CL MG/M3	Skin
Hexane	50	176					

If there are no exposure limit numbers listed in the Exposure Guidelines chart, this indicates that no OSHA or ACGIH exposure limits have been established.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (C 760 mmHg): 69C
Melting Point (C): -95C
Specific Gravity (H2O 1): 0.6603
Vapor Pressure (mmHg): 120.23C
Percent Volatile by vol (%): 100%
Vapor Density (Air = 1): 3.0
Evaporation Rate (Butu.c 1): 9.0
Solubility in Water (%): Slight
Appearance:
Clear, colorless liquid, characteristic odor

10. STABILITY AND REACTIVITY

Stability: Yes

Hazardous Polymerization
Does not occur

Hazardous Decomposition:
CO_2

Conditions to Avoid:
Heat, contact with ignition sources.

Materials To Avoid:

[ ] Water
[ ] Acids
[ ] Bases
[ ] Corrosives
[X] Oxidizers
[ ] Other:

11. TOXICOLOGICAL INFORMATION

Toxicity Data

ist-hmn TCLo: 5000 ppm/10M
orl-rat LD50: 28710 mg/kg
(see Section 3 - Symptoms of Exposure)

Toxicological Findings:
Test on laboratory animals indicate material may produce adverse
mutagenic and reproductive effects.
Cited in Registry of Toxic Effects of Chemical Substances (RTECS)

12. DISPOSAL CONSIDERATIONS

EPA Waste Number: D001

Treatment:
Incineration, fuel blending or recycle. Contact your local permitted waste-disposal site (TSD) for permissible treatment sites.
ALWAYS CONTACT A PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.

13. TRANSPORT INFORMATION

DOT Proper Shipping Name:
Hexane

DOT ID Number:
UN1208

14. REGULATORY INFORMATION

TSCA Statement:
The CAS number of this product is listed on the TSCA Inventory.

Component	SARA EHS (302)	SARA EHS TPQ (lbs)	CERCLA RQ (lbs)
Hexane			5000

Component	OSHA Floor List	SARA 313	DeMinimis for SARA 313 (%)
Hexane	Y	Y	1.0

If there is no information listed on the regulatory information chart, this indicates that the chemical is not covered by the specific regulation listed.

15. OTHER INFORMATION

Comments:
None

NFPA Hazard Ratings:

Health : 1
Flammability : 3
Reactivity : 0
Special Hazards :

Revision History: 5/13/93 5/1/93 9/26/96 6/3/97
8/28/97 10/27/97 1/27/98 11/29/98 4/26/99 4/28/99
5/11/99 3/1/01 1/29/01 3/3/05 6/7/05 11/29/05 5/28/06
11/8/06 8/23/08 12/2/08

[] = Revised Section

N/A = Not Available

N/E = None Established

The statements contained herein are offered for informational purposes only and are based upon technical data that EM Science believes to be accurate. It is intended for use only by persons having the necessary technical skill and at their own discretion and risk. Since conditions and manner of use are outside our control, we make NO WARRANTY, EXPRESS OR IMPLIED, OR MERCHANTABILITY, FITNESS OR OTHERWISE.