



Material Safety Data Sheet

Hexanes

MSDS# 89589

Section 1 - Chemical Product and Company Identification

MSDS Name: Hexanes

Catalog Numbers: AC168570000, AC176660000, AC176660010, AC176660025, AC176660051, AC210590000, AC210590010, AC210590025, AC210590050, AC210590250, AC268360000, AC268360000, AC390740000, AC390740010, AC390740025, AC411540000, AC411540020, AC411540020, AC411550000, AC423760000, 16857-0025, 16857-5000, 26836-0010, 26836-0025, 41154-0010, 41155-5000, 42376-0010, 42376-5000, 61007-0040, 61018-0040, 61037-1000

Synonyms: Hexane isomers, mostly n-hexane.

Company Identification: Acros Organics BVBA
Janssen Pharmaceuticaaan 3a
2440 Geel, Belgium

Company Identification: (USA) Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

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

Section 2 - Composition, Information on Ingredients

Risk Phrases:

CAS#: 96-14-0
Chemical Name: 3-Methylpentane
%: 4.2
EINECS#: 202-481-4
Hazard Symbols:

Risk Phrases:

CAS#: 96-37-7
Chemical Name: Methylcyclopentane
%: 9.7
EINECS#: 202-503-2
Hazard Symbols:

Risk Phrases: 11 38 48/20 51/53 62 65 67

CAS#: 110-54-3
Chemical Name: Hexane
%: 86.1

EINECS#: 203-777-6

Hazard Symbols: F XN N

Text for R-phrases: see Section 16

Hazard Symbols:

XN F N



Risk Phrases:

11 38 48/20 51/53 62 65 67

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! May be harmful if absorbed through the skin. Dangerous for the environment. Aspiration hazard if swallowed. Can enter lungs and cause damage. Extremely flammable liquid and vapor. Vapor may cause flash fire. Possible risk of impaired fertility. Breathing vapors may cause drowsiness and dizziness. Causes eye, skin, and respiratory tract irritation. Long-term exposure may cause damage to the nervous system of the extremities (the hands, arms, legs and feet). Target Organs:

Central nervous system, respiratory system, eyes, skin, peripheral nervous system, testes.

Potential Health Effects

Eye: Causes mild eye irritation.

Skin: Prolonged and/or repeated contact may cause defatting of the skin and dermatitis. Causes irritation with burning pain, itching, and redness. Absorbed through the skin.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Aspiration of material into the lungs may cause chemical pneumonitis, which may be fatal. May cause central nervous system depression.

Inhalation: Causes respiratory tract irritation. Exposure produces central nervous system depression. Vapors may cause dizziness or suffocation.

Chronic: Prolonged or repeated skin contact may cause defatting and dermatitis. Prolonged or repeated exposure may cause adverse reproductive effects. Chronic exposure may cause visual disturbances. Laboratory experiments have resulted in mutagenic effects. Peripheral neuropathy symptoms include: muscular weakness, paresthesia, numbing of the hands, feet, legs and arms, unsteadiness, and difficulty in walking and standing. Repeated exposure may cause nervous system abnormalities with muscle weakness and damage, motor incoordination, and sensation disturbances. Chronic exposure produces peripheral neuropathy.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Skin: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion: Potential for aspiration if swallowed. Get medical aid immediately. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs naturally, have victim lean forward.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively. For ingestion, the stomach could be intubated, aspirated, and lavaged with a slurry of activated charcoal--protect the airway from aspiration of gastric contents. Monitor arterial blood gases in cases of severe aspiration.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. May accumulate static electrical charges, and may cause ignition of its own vapors. Extremely flammable liquid and vapor. Vapor may cause flash fire. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas. This liquid floats on water and may travel to a source of ignition and spread fire.

Extinguishing Media: Use dry chemical, carbon dioxide, or appropriate foam. Solid streams of water may be ineffective and spread material. Water may be ineffective because it will not cool material below its flash point.

Autoignition Temperature: 225 deg C (437.00 deg F)

Flash Point: -22 deg C (-7.60 deg F)

Explosion Limits: Lower: 1.1 vol %

Explosion Limits: Upper: 7.5 vol %

NFPA Rating: health: 1; flammability: 3; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Provide ventilation. A vapor suppressing foam may be used to reduce vapors. Use only non-sparking tools and equipment.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Take precautionary measures against static discharges. Keep away from heat, sparks and flame. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Avoid breathing vapor or mist.

Storage: Keep away from heat and flame. Keep away from sources of ignition. Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
3-Methylpentane	500 ppm TWA (other than n-Hexane) (listed under Hexane isomers).1000 ppm STEL (other than n-Hexane) (listed under Hexane isomers).	100 ppm TWA (other than n-hexane); 350 mg/m3 TWA (other than n-hexane) (listed under Hexane isomers).	none listed
Methylcyclopentane	none listed	none listed	none listed
Hexane	50 ppm; Skin - potential significant contribution to overall exposure by the cutaneous route	50 ppm TWA; 180 mg/m3 TWA 1100 ppm IDLH (10% LEL)	500 ppm TWA; 1800 mg/m3 TWA

OSHA Vacated PELs: 3-Methylpentane: 500 ppm TWA; 1800 mg/m3 TWA (listed under Hexane isomers)

Methylcyclopentane: None listed Hexane: 50 ppm TWA; 180 mg/m3 TWA

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

Exposure Limits

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: 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.

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Color: clear colorless
Odor: gasoline-like
pH: Not available
Vapor Pressure: 151 mm Hg @ 25 deg C
Vapor Density: 2.97(Air = 1)
Evaporation Rate: Not available
Viscosity: 0.31 mPas 20 deg C
Boiling Point: 69 deg C @ 760 mmHg (156.20°F)
Freezing/Melting Point: -95 deg C (-139.00°F)
Decomposition Temperature: Not available
Solubility in water: Insoluble
Specific Gravity/Density: 0.6500
Molecular Formula: C6H14
Molecular Weight: 86.18

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Ignition sources, excess heat, electrical sparks, confined spaces.
Incompatibilities with Other Materials: Strong oxidizing agents.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.
Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 96-14-0: None listed
CAS# 96-37-7: GY4640000
CAS# 110-54-3: MN9275000
RTECS: Not available. RTECS: Not available. RTECS:
CAS# 110-54-3: Draize test, rabbit, eye: 10 mg Mild;
Inhalation, mouse: LC50 = 150000 mg/m³/2H;
LD50/LC50: Inhalation, rat: LC50 = 48000 ppm/4H;
Inhalation, rat: LC50 = 627000 mg/m³/3M;
Oral, rat: LD50 = 25 gm/kg;
.
Carcinogenicity: 3-Methylpentane - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Methylcyclopentane - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Hexane - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity: Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: HEXANES
Hazard Class: 3
UN Number: UN1208

Packing Group: II
Canada TDG
Shipping Name: HEXANES
Hazard Class: 3
UN Number: UN1208
Packing Group: II

USA RQ: CAS# 110-54-3: 5000 lb final RQ; 2270 kg final RQ

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN F N

Risk Phrases:

R 11 Highly flammable.

R 38 Irritating to skin.

R 48/20 Harmful : danger of serious damage to health by prolonged exposure through inhalation.

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 62 Possible risk of impaired fertility.

R 65 Harmful: may cause lung damage if swallowed.

R 67 Vapours may cause drowsiness and dizziness.

Safety Phrases:

S 9 Keep container in a well-ventilated place.

S 16 Keep away from sources of ignition - No smoking.

S 29 Do not empty into drains.

S 33 Take precautionary measures against static discharges.

S 36/37 Wear suitable protective clothing and gloves.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

S 62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

WGK (Water Danger/Protection)

CAS# 96-14-0: 1

CAS# 96-37-7: 1

CAS# 110-54-3: 1

Canada

CAS# 96-14-0 is listed on Canada's DSL List

CAS# 96-37-7 is listed on Canada's DSL List

CAS# 110-54-3 is listed on Canada's DSL List

Canadian WHMIS Classifications: B2, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 96-14-0 is not listed on Canada's Ingredient Disclosure List.

CAS# 96-37-7 is not listed on Canada's Ingredient Disclosure List.

CAS# 110-54-3 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 96-14-0 is listed on the TSCA Inventory.

CAS# 96-37-7 is listed on the TSCA

Inventory.

CAS# 110-54-3 is listed on the TSCA

Inventory.

Section 16 - Other Information

MSDS Creation Date: 6/03/1999

Revision #8 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
