

# MATERIAL SAFETY DATA SHEET

Hexanes

## SECTION 1 . Product and Company Identification

Product Name and Synonym: Hexanes  
Product Code: H1950  
Material Uses:  
Manufacturer: Science Stuff  
1104 Newport Ave  
Austin, TX 78753  
(512) 837-6020  
Entry Date : 6/5/2013  
Print Date: 6/5/2013  
24 Hour Emergency Assistance : Chemtrec 800-424-9300  
Canutec 613-996-6666

Health:	3
Flammability:	3
Reactivity:	0

Hazard Rating:  
Least Slight Moderate High Extreme  
0 1 2 3 4  
NA=Not Applicable NE=Not Established

## SECTION 2 HAZARD IDENTIFICATION

Keep away from heat and ignition sources. Harmful if swallowed. Avoid breathing vapors. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

Physical state: Liquid.

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview:

DANGER!

HARMFUL IF INHALED OR SWALLOWED.

MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: PERIPHERAL NERVOUS SYSTEM, RESPIRATORY TRACT, SKIN, EYES, CENTRAL NERVOUS SYSTEM.

EXTREMELY FLAMMABLE LIQUID AND VAPOR.

VAPOR MAY CAUSE FLASH FIRE.

ASPIRATION HAZARD

Keep away from heat, sparks and flame.

Do not ingest.

Do not breathe vapor or mist.

Avoid contact with eyes, skin or clothing.

Keep container tightly closed and sealed until ready for use. Use only with adequate ventilation. Wash thoroughly after handling.

Routes of entry:

Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects:

Eyes: Irritating to eyes.

Skin: Irritating to skin.

Inhalation: Toxic by inhalation. Irritating to respiratory system.

Ingestion: Toxic if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity/ Reproductive toxicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Target organs: May cause damage to the following organs: peripheral nervous system, upper

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respiratory tract, skin, eyes, central nervous system (CNS)  
Medical conditions aggravated by over-exposure:  
Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk  
may be aggravated by over-exposure to this product

## SECTION 3 MIXTURE COMPONENTS

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input checked="" type="checkbox"/>	Hexanes	CAS# 110-54-3	100%	V/V	OSHA TWA 500 ppm (1800 mg/mf)

## SECTION 4 FIRST AID MEASURES

Keep away from heat and ignition sources. Harmful if swallowed. Avoid breathing vapors. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

FIRST AID: CALL A PHYSICIAN. SKIN: Remove contaminated clothing. Wash exposed area with soap and water.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: Give several glasses of milk or water. Vomiting may occur spontaneously, but DO NOT INDUCE! Never give anything by mouth to an unconscious person.

## SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type:	CO2, dry chemical powder, alcohol or polymer foam.
Fire / Explosion Hazards:	Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions. Extremely flammable.
Fire Fighting Procedure:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

Evacuate area. Wear self-contained breathing apparatus and protective clothing. Eliminate all sources of ignition. cover with activated carbon absorb, take up and place in closed

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personal from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-Proof tools and explosion- proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material

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may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal. Dilute with water and mop up if water- soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

### SECTION 7 HANDLING AND STORAGE

Store in cool area away from ignition sources keep tightly closed . Keep away from heat, sparks and open flames.  
Store in a cool dry place .

### SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: NIOSH/MSHA-approved respirator

Ventilation

Local Exhaust

Mechanical

Protective Gloves: chemical resistant gloves

Eye Protection: Splash Goggles

Other Protective Equipment: Wear appropriate clothing to prevent skin exposure

Product name - United States –

n-Hexane

OSHA (United States, 1989)

TWA: 180 mg/m<sup>3</sup>

OSHA PEL 1989 (United States, 3/1989)

TWA: 50 ppm 8 hour(s)

TWA: 180 mg/m<sup>3</sup> 8 hour(s)

NIOSH REL (United States, 6/2008)

TWA: 50 ppm 10 hour(s)

TWA: 180 mg/m<sup>3</sup> 10 hour(s)

ACGIH TLV (United States, 1/2008) Absorbed through skin.

TWA: 50 ppm 8 hour(s)

OSHA PEL (United States, 11/2006)

TWA: 500 ppm 8 hour(s)

TWA: 1800 mg/m<sup>3</sup> 8 hour(s)

Engineering measures: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protection

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to

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liquid splashes, mists, gases or dusts.

Recommended: splash goggles

Skin: Personal protective equipment for the body should be selected based on the task being performed and risks involved and should be approved by a specialist before handling this product.

Body recommended: lab coat

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Recommended: nitrile rubber

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Melting Point:	not available	Percent Volatile by Volume:	100
Boiling Point:	>68°C	Evaporation Rate	N/A
Vapor Pressure:	100mm @15.8°C	Evaporation Standard	Not Applicable
Vapor Density:	2.97	Auto Ignition Temp	Information not available
Solubility in Water:	insoluble	Lower Flamm. Limit in Air	1.1%
Appearance /Odors:	liquid	Upper Flamm. Limit in Air	7.5%
Flash Point:	-23° C		
Specific Gravity:	0.68		

### SECTION 10 STABILITY AND REACTIVITY INFORMATION

Stability:	Stable
Conditions to Avoid:	sparks, open flames
Materials to Avoid:	Oxidizing materials. And w/chlorine fluorine, magnesium perchlorate
Hazardous Decomposition Products:	toxic fumes of:co,co*2.
Hazardous polymerization:	Will Not Occur
Conditions to Avoid:	None known

### SECTION 11 Toxicological Information

Toxicity data- United States- Product/ ingredient name:

n- Hexane			
LD50	25 g/kg	Oral	Rat
LD50	25000 mg/kg	Oral	Rat
LDLo	9100 mg/kg	Intraperitoneal	Rat
TDL0	20000 mg/kg	Oral	Rat

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LC50 627000 mg/m3 Inhalation Vapor Rat  
LC50 48000 ppm Inhalation Gas Rat  
LC50 48000 ppm Inhalation Vapor Rat

Carcinogenic effects: No known significant effects or critical hazards.  
Mutagenic effects: No known significant effects or critical hazards.  
Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards.

### SECTION 12 Ecological Information

Aquatic toxicity

Product/ ingredient name

n- Hexane

Acute LC50 2.5 mg/L Fish 96 hours  
Acute LC50 2500 to 2980 ug/L Fresh water Fish – Fathead minnow – Pimephales promelas – 31 days – 20.4 mm – 0.123 g 96 hours  
Acute LC50 113000 ug/L Fresh water Fish – Mozambique tilapia – Tilapia mossambica – 99 mm – 10 g 96 hours

Environmental effects : No known significant effects or critical hazards.  
Other adverse effects : No known significant effects or critical hazards.

### SECTION 13 Disposal Considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

### SECTION 14 Transport Information

DOT Classification: Hexanes, 3, UN1208, PG II

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

### SECTION 15 Regulatory Information

United States

HCS Classification:  
Target organ effects  
Toxic material  
Irritating material  
Flammable liquid

U.S. Federal regulations:

United States inventory (TSCA 8b): listed  
TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.  
SARA 302/304/311/312 extremely hazardous substances: No products were found.  
SARA 302/304 emergency planning and notifications: No products were found.  
SARA 302/304/311/312 hazardous chemicals: n- Hexane  
SARA 311/312 MSDS distribution- Chemical inventory- hazard identification: n- Hexane  
Fire Hazard:, Immediate (acute) health hazard, Delayed (chronic) health hazard  
Clean Water Act (CWA) 307: No products were found.  
Clean Water Act (CWA) 311: No products were found.  
Clean Air Act (CAA) 112 accidental release prevention: No products were found.  
Clean Air Act (CAA) 112 regulated flammable substance: No products were found.  
Clean Air Act (CAA) 112 regulated toxic substance: No products were found.

DEA List I Chemicals : not listed  
(Precursor Chemicals)  
DEA List II Chemicals : not listed  
(essential Chemicals)

SARA 313  
Form R – Reporting Requirements: n- Hexane

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CAS number : 110-54-3 Concentration : 100

Supplier notification : n- Hexane  
CAS number : 110-54-3 Concentration : 100

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

Massachusetts Substance : This material is listed.  
New Jersey Hazardous Substances : This material is listed.  
New York Acutely Hazardous Substances : This material is listed.  
Pennsylvania RTK Hazardous Substances : This material is listed.  
Canada

WHMIS (Canada) :  
Class B-2 : Flammable liquid  
Class D-2A: Material causing other toxic effects (Very toxic).

Canadian lists :  
CEPA Toxic Substance: This material is not listed.  
Canadian ARET: This material is not listed.  
Canadian NPRI: This material is listed.  
Alberta Designated Substances: This material is not listed.  
Ontario Designated Substances: This material is not listed.  
Quebec Designated Substances: This material is not listed.  
CEPA DSL/ CEPA NDSL : CEPA DSL:  
This material is listed or exempted.

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

### SECTION 16 Additional Information

Flammability

Health

Reactivity

Revisions

NFPA

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The information herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty either expressed or implied is made for the completeness or accuracy of the information whether originating from the above mentioned company or not. Users of this material should satisfy themselves by independent investigation of current scientific and medical knowledge that the material can be used safely.