



# SAFETY DATA SHEET

[Required under safety and health regulations for shipping and handling]

Version: 2022

Date Updated: February 09, 2022

## SECTION 1. ----- PRODUCT AND COMPANY IDENTIFICATION -----

**Product Name** n-Hexanes  
**Product Code(s)** HC5600  
**Recommended Use** For Laboratory Research Use Only  
Not for Human or Animal Drug Use

**Supplier** Bio Basic Inc.  
**Address** 20 Konrad Crescent, Markham, Ontario,  
Canada, L3R 8T4  
**Telephone** (905) 474 4493  
**Fax** (905) 474 5794  
**For Chemical Emergency Phone#** (416) 995 9730

## SECTION 2. ----- HAZARDS IDENTIFICATION -----

### GHS Classification in accordance with Hazardous Products Regulations (HPR) (SOR/2015-17)

Flammable liquids (Category 2), H225 Skin irritation (Category 2), H315 Reproductive toxicity (Category 2), H361

Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336 Specific target organ toxicity - repeated exposure, Inhalation (Category 2), Nervous system, H373  
Aspiration hazard (Category 1), H304

Short-term (acute) aquatic hazard (Category 2), H401 Long-term (chronic) aquatic hazard (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

### GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H225 Highly flammable liquid and vapor.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H336 May cause drowsiness or dizziness.  
H361 Suspected of damaging fertility or the unborn child.  
H373 May cause damage to organs (Nervous system) through prolonged or repeated exposure if inhaled.  
H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.

P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P260	Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P331	Do NOT induce vomiting.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P391	Collect spillage.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

**Hazards not otherwise classified (HNOC) or not covered by GHS**

- none

**SECTION 3. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----**

Chemical Name	EC No.	CAS-No	Weight %
n-Hexanes	203-777-6	110-54-3	<100

**SECTION 4. ----- FIRST-AID MEASURES-----**

**General advice**

Show this material safety data sheet to the doctor in attendance.

**If inhaled**

After inhalation: fresh air. Call in physician.

**In case of skin contact**

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

**In case of eye contact**

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

**If swallowed**

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

**Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

**Indication of any immediate medical attention and special treatment needed**

No data available

**SECTION 5. ----- FIRE FIGHTING MEASURES -----****Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>) Foam Dry powder

**Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given.

**Special hazards arising from the substance or mixture**

Carbon oxides

Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

**Advice for firefighters**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

**Further information**

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

**SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----****Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact.

Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

**Environmental precautions**

Do not let product enter drains. Risk of explosion.

**Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

**Reference to other sections**

For disposal see section 13.

**SECTION 7. ----- HANDLING AND STORAGE-----****Precautions for safe handling****Advice on safe handling**

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

**Advice on protection against fire and explosion**

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

**Hygiene measures**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.

## Conditions for safe storage, including any incompatibilities

### Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Recommended storage temperature see product label.

Storage class (TRGS 510): 3: Flammable liquids

### Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated

## SECTION 8. - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - -

### Control parameters

#### Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
n-Hexane	110-54-3	TWA	50 ppm 176 mg/m <sup>3</sup>	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks	Substance may be readily absorbed through intact skin			
		TWA	20 ppm	Canada. British Columbia OEL
	Contributes significantly to the overall exposure by the skin route.			
		TWAEV	50 ppm 176 mg/m <sup>3</sup>	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	Skin (percutaneous)			
		TWA	50 ppm	USA. ACGIH Threshold Limit Values (TLV)

### Exposure controls

#### Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

#### Personal protective equipment

##### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

##### Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm Break

through time: 480 min  
Material tested:Camatril® (KCL 730 / Aldrich Z677442, Size M)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material:  
Nitrile rubber

Minimum layer thickness: 0.11 mm Break  
through time: 10 min  
Material tested:KCL 741 Dermatril® L

### Body Protection

Flame retardant antistatic protective clothing.

### Respiratory protection

required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

### Control of environmental exposure

Do not let product enter drains. Risk of explosion.

## SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----

### Information on basic physical and chemical properties

- |   |   |
|---|---|
| a) Appearance                                   | Form: liquid<br>Color: colorless  |
| b) Odor   | hydrocarbon-like  |
| c) Odor Threshold                               | No data available   |
| d) pH   | 7.0   |
| e) Melting point/freezing point                 | Melting point: -95.35 °C (-139.63 °F) at 1,013 hPa                        |
| f) Initial boiling point and boiling range      | 69 °C 156 °F at 1,013 hPa   |
| g) Flash point                                  | -22 °C (-8 °F) - c.c.   |
| h) Evaporation rate                             | 15.8  |
| i) Flammability (solid, gas)                    | No data available   |
| j) Upper/lower flammability or explosive limits | Upper explosion limit: 8.1 %(V)<br>Lower explosion limit: 1.0 %(V)        |
| k) Vapor pressure                               | 100 hPa at 9.8 °C (49.6 °F)   |
| l) Vapor density                                | No data available   |
| m) Relative density                             | No data available   |
| n) Water solubility                             | 0.01 g/l at 25 °C (77 °F) - slightly soluble                              |
| o) Partition coefficient: log Pow:              | ca.4 at 20 °C (68 °F) - (Lit.), Potential bioaccumulation n-octanol/water |
| p) Autoignition temperature                     | 225 °C (437 °F) at 1,013 hPa  |

- q) Decomposition temperature No data available
- r) Viscosity No data available
- s) Explosive properties No data available
- t) Oxidizing properties No data available

**Other safety information**

No data available

**SECTION 10. -----STABILITY AND REACTIVITY -----**

**Reactivity**

Vapors may form explosive mixture with air. Vapors may form explosive mixture with air.

**Chemical stability**

The product is chemically stable under standard ambient conditions (room temperature) . The product is chemically stable under standard ambient conditions (room temperature) .

**Possibility of hazardous reactions**

Risk of explosion with: Strong oxidizing agents nitrogen oxides

Violent reactions possible with: halogens

Risk of ignition or formation of inflammable gases or vapours with: Peroxides (sodium salt)

**Conditions to avoid**

Warming.

**Incompatible materials** rubber, various plastics

**Hazardous decomposition products**

In the event of fire: see section 5

**SECTION 11. ----- TOXICOLOGICAL INFORMATION -----**

**Acute toxicity**

LD50 Oral - Rat - male and female - 16,000 mg/kg (OECD Test Guideline 401)

LC50 Inhalation - Rat - 4 h - 172 mg/l  
Remarks: (RTECS)

LD50 Dermal - Rabbit - male - > 2,000 mg/kg (OECD Test Guideline 402)  
Remarks: (ECHA)

**Skin corrosion/irritation**

Skin - Rabbit

Result: Skin irritation - 24 h (OECD Test Guideline 404)  
Remarks: (Regulation (EC) No 1272/2008, Annex VI)

**Serious eye damage/eye irritation**

Eyes - Rabbit

Result: No eye irritation - 72 h (OECD Test Guideline 405)

**Respiratory or skin sensitization**

Local lymph node assay (LLNA) - Mouse Result:  
negative  
(OECD Test Guideline 429)

**Germ cell mutagenicity**

No data available Test Type:  
Ames test  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation Method:  
OECD Test Guideline 471  
Result: negative  
Test Type: dominant lethal test  
Species: Mouse  
Application Route: inhalation (vapor)  
Result: negative  
Remarks: (ECHA)

**Carcinogenicity**

No data available

**Reproductive toxicity**

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals. Suspected human reproductive toxicant Suspected of damaging fertility.  
Suspected of damaging fertility.

**Specific target organ toxicity - single exposure**

May cause drowsiness or dizziness. - Central nervous system  
Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

**Specific target organ toxicity - repeated exposure**

Inhalation - May cause damage to organs through prolonged or repeated exposure. - Nervous system  
Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

**Aspiration hazard**

May be fatal if swallowed and enters airways.  
Aspiration hazard, Aspiration may cause pulmonary edema and pneumonitis.

**Additional Information**

Repeated dose toxicity - Rat - male - Oral - NOAEL (No observed adverse effect level) - 6.6 mg/kg  
Remarks: (ECHA)

Drowsiness, irritant effects, somnolence  
narcosis, Nausea, Tiredness, CNS disorders, paralysis symptoms Risk of corneal clouding.

It generally applies for aliphatic hydrocarbons with 6 - 18 carbon atoms that they may cause pneumonia, in some cases also pulmonary oedema, upon direct inhalation, i.e. in conditions that can occur only in very special circumstances (nebulizations, spraying, inhalation of aerosols and similar). After absorption of very large quantities: narcosis.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**SECTION 12. ----- ECOLOGICAL INFORMATION -----**

**Toxicity**

Toxicity to fish                      LC50 - Pimephales promelas (fathead minnow) - 2.5 mg/l - 96 h  
Remarks: (ECOTOX Database)

Toxicity to daphnia and other aquatic                      EC50 - Daphnia magna (Water flea) - 2.1 mg/l - 48 h  
Remarks: (Lit.)

invertebrates

**Persistence and degradability**

Biodegradability aerobic - Exposure time 28 d  
Result: 98 % - Readily biodegradable.  
(OECD Test Guideline 301F)  
Remarks: (in analogy to similar products)

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**Other adverse effects**

No data available

**SECTION 13. ----- DISPOSAL CONSIDERATIONS -----**

**Product**

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

**SECTION 14. ----- TRANSPORT INFORMATION -----**

**TDG**

UN number: 1208 Class: 3 Packing group: II  
Proper shipping name: HEXANES  
Labels: 3  
ERG Code: 128  
Marine pollutant: no

**IMDG**

UN number: 1208 Class: 3 Packing group: II EMS-No: F-E, S-D Proper shipping name: HEXANES  
Marine pollutant : yes Marine pollutant : yes

**IATA**

UN number: 1208 Class: 3 Packing group: II  
Proper shipping name: Hexanes

**SECTION 15. ----- REGULATORY INFORMATION -----**

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

**SECTION 16. ----- OTHER INFORMATION -----**

Further information: no limited for paper copy, just for internal uses.  
For research use only. Not intended for human or animal diagnostic or therapeutic uses.

**Disclaimer**

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its

publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**Issuing Date:** 09-Feb-2022

**End of SDS**