

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and the undertaking/undertaking

1.1 Product Identifier

Commercial Name: HEXANE
CAS 110-54-3
Synonyms: Hexane mixture

1.2 Relevant identified uses of the substance or mixture and uses advised against

General use: Solvents, petrochemical industry, paints and inks.

Identified uses

1. Preparation, processing and distribution of substances and mixtures
2. Use in laboratories
3. Use in coatings
4. Use in chemical synthesis.

1.3 Details of the supplier of the safety data sheet

Company name: FORTEQUIM S. A. DE C. V.
Address: Carretera a San Miguel Km. 5, Col. Hacienda Española
City/state/postal code: Guadalupe Nuevo León, CP 67110
Website: www.fortequim.com.mx
Telephone: 81311400

1.4 Emergency telephone number

24-hour CHEMTREC Mexico number: 01-800-681-9531 703-527-3887 (International)
SETIQ MEXICO: 0180000214/015555591588

SECTION 2	HAZARD IDENTIFICATION
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2.1 Classification of the substance or mixture

Classification according to the Globally Harmonized System (GHS):

Hazard class	Category	Hazard class and category	Hazard statement
Flammable liquid	2	(Flam. Liq. 2)	H225
Aspiration hazard	1	(Asp. Tox. 1)	H304
Skin corrosion/irritation	2	(Skin Irrit. 2)	H315
Specific target organ toxicity – single exposure (narcotic effects, drowsiness)	3	(STOT SE. 3)	H336
Specific target organ toxicity – repeated exposure	2	(STOT RE. 2)	H373
Reproductive toxicity.	2	(Repr. 2)	H361f
Hazardous to the aquatic environment – chronic hazard	2	(Aquatic Chronic 2)	H411

Remarks

Physical hazards not otherwise classified (HNOC)

PHNOC: Electrostatic charges can be generated during pumping and other operations.

Unclassified Health Hazards (HHNOC)



HHNOC: None known



The main physicochemical adverse effects on human health and the environment

Narcotic effects.

2.2 Label components

Pictograms

GHS02, GHS07, GHS08, GHS09		Flammable Flammable liquids, category 2
		Irritant Skin irritation, category 2 Specific target organ toxicity following single exposure, category 3

		<p>Health Hazard Aspiration Hazard, category 1 Reproductive toxicity, category 2</p>
		<p>Environmentally Damaging Chronic hazards to the aquatic environment, category 2</p>

Hazard statements

H225	Highly flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H336	May cause drowsiness or dizziness
H361f	Suspected of damaging fertility
H373	May cause damage to organs (nervous system) through prolonged or repeated exposure (if inhaled)
H411	Toxic to aquatic life with long lasting effects

<p>Precautionary statements – prevention P233 P240 P280 P210 P241 P242 P243 P271 P260 P264 P273</p>	<p>Keep the container tightly closed. Ground/equipotential link of vessel and receiving equipment; Use personal protective eye equipment, protective clothing, protective gloves. Keep away from heat, sparks, open flame and hot surfaces, do not smoke. Use explosion-proof [electrical/ventilation/lighting] material. Do not use tools that produce sparks. Take precautionary measures against electrostatic discharge. Use only outdoors or in a well-ventilated place Not breathing dust/smoke/gas/mist/vapors/aerosol Wash thoroughly after handling. Do not disperse in the environment</p>
<p>Precautionary statements – response P314 P308 + P313 P304 + P340 + P312 P301 + P310 + P331 P303 + P361+ P353 P302 + P352+ P362</p>	<p>Consult a doctor in case of discomfort. IN CASE OF overt or suspected exposure: Consult a doctor. IN CASE OF INHALATION: Transport the victim outside and keep him at rest in a comfortable position to breathe. Call a POISON CONTROL CENTER or doctor if you feel unwell. IN CASE OF INGESTION: Call immediately to a POISON CONTROL CENTER or a doctor. Do not induce vomiting. IN CASE OF CONTACT WITH SKIN (or hair): Remove contaminated clothing immediately. Rinse the skin with water or shower. IN CASE OF SKIN CONTACT: Wash with</p>

P332 + P313 P305 + P351+ P338	Plenty of soap and water. Remove contaminated clothing and wash it before using it again. In case of skin irritation: Consult a doctor. IN CASE OF CONTACT WITH EYES: Rinse carefully with water for several minutes. Remove contact lenses if you wear it and find it easy. Continue washing.
P337 + P313	If eye irritation persists: Consult a doctor.
Fire: P370 + P378 P391	Use CO ₂ , dry powder, or foam as a method of extinguishing. Collect spills.
Storage P405 P403 + P235	Keep under lock and key. Store in a well-ventilated place. Keep in a cool place.
Waste Disposal P501	Dispose of containers in accordance with local, federal, or international regulations.
Additional identification element P262 + P264	Avoid contact with skin and clothing. Wash thoroughly after handling.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Chemical characterization (substance):

Chemical Name: Hexane, C₆H₁₄

Other means of identification: Hexanes, n-hexane.

CAS Number: 110-54-3

Ingredient Name	%	CAS Number
n-Hexane	>60	110-54-3
Hexanes, other	<40	*

* = Miscellaneous ** = Mix *** = Property

Any concentration shown as a range is to protect confidentiality or is due to process variation.

Occupational exposure limits, if available, are listed in section 8.

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

Eye contact: Rinse the eyes immediately with plenty of water, occasionally lifting the upper and lower eyelids. Check if the victim wears contact lenses and in this case, remove them. Continue rinsing for at least 10 minutes. Seek medical attention.

Inhalation: If respiratory symptoms appear, move the victim away from the source of exposure and into the open air in a comfortable breathing posture. If respiratory distress occurs, oxygen or artificial respiration should be administered by qualified personnel. If symptoms persist, medical attention is needed.

In case of skin contact: Remove all contaminated clothing. Wash immediately with plenty of soap and water for at least 10 minutes. Seek medical attention. Wash clothes and footwear before using them again.

Ingestion: Aspiration hazard: Do not induce vomiting or administer anything through the mouth as this material can penetrate the lungs and cause serious lung injury. If the victim is drowsy or unconscious and vomiting, place him on his left side, head down. If possible, do not leave the victim unattended and observe carefully if breathing is adequate. Seek medical attention. Ensure good air circulation. Loosen anything that might be tight, such as a shirt collar, tie, belt, necklace, or waistband.

4.2 Most important and effects, both acute and delayed POTENTIAL ACUTE HEALTH EFFECTS:

Eye Contact: It can cause irritation.

Inhalation: Overexposure to vapors may cause airway irritation, coughing, nausea, headache, vomiting, and central nervous system depression.

Skin contact: Prolonged or repeated contact can dry out the skin and cause irritation It can be

Ingestion: Fatal if swallowed, danger of aspiration.

SYMPTOMS OF SIGNS / OVEREXPOSURE:

Eye Contact: Adverse symptoms may include: pain or irritation, tearing, redness.

Inhalation: Adverse symptoms may include: nausea or vomiting, headache, drowsiness/tiredness, dizziness/vertigo, unconsciousness.

Skin contact: Adverse symptoms may include: irritation, redness.

Ingestion: Adverse symptoms may include: nausea or vomiting.

4.3 Indication for immediate medical attention and special treatment, if necessary

Notes to doctor: Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in people exposed to high concentrations of hydrocarbon solvents (e.g., indoors or with deliberate abuse). The use of other drugs with lower arrhythmogenic potential should be analyzed. If sympathomimetic drugs are administered, observe the development of cardiac arrhythmias.

Specific treatment: No action will be taken that involves any personal risk or that does not provide for adequate training.
 Protection of personnel: If vapours are still suspected, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It would be dangerous for the person providing help to give mouth-to-mouth resuscitation.
 from: First aid

See toxicological information (Section 11)

SECTION 5 FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Dry chemical powder, carbon dioxide and foam are recommended. Water recommended. Sprayed to cool or protect exposed materials or structures. Carbon dioxide

It can displace oxygen. Precautions should be taken when applying carbon dioxide in confined spaces. Simultaneous use of foam and water should be avoided on the same surface as water destroys foam. Water may not be effective for extinguishing, except when used under favorable conditions and by experienced firefighters.
 Direct water jet

Extinguishing media not to be used for safety reasons:

5.2 Special hazards arising from the substance or mixture

Easily flammable. This material can ignite by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lighters, mechanical or electrical equipment, and electronic devices such as mobile phones, computers, calculators, and pagers that are not certified as intrinsically safe). In case of fire or heating, an increase in pressure will occur and the vessel will burst, with the risk of an explosion occurring. The steam or gas is heavier than air and will spread on the ground. Vapors can accumulate in low or closed areas or travel a considerable distance to the source of fire and produce a flame backing. This product floats and may flare up again on the surface of the water. Liquid waste that seeps into the sewer can cause a fire or explosion hazard. Firefighting water contaminated with this material must be prevented from entering waterways, drains or sewers.

Decomposition products: Carbon dioxide, carbon monoxide.
 hazardous thermal

5.3 Advice for firefighters

Special protective equipment for firefighters: Wear a self-contained breathing apparatus with a full face mask that operates in positive pressure mode.

Special measures that firefighting equipment must have: Evacuate the area and fight the fire from a safe distance. Keep wind up and out of low-lying areas. Containers can build up pressure if exposed to heat (flame). Cool with water spray. Water used to fight the fire must be contained and disposed of in accordance with local regulatory requirements, state and federal.

SECTION 6

ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action will be taken that involves any personal risk or that does not provide for adequate training. Evacuate the surroundings. Don't let unnecessary and unprotected staff in. Do not touch or walk on spilled material. Turn off all ignition sources. No flares, no smoke, no flames in the risk area. Avoid breathing steam or mist. Provide adequate ventilation. Wear an appropriate breathing apparatus when the ventilation system is inadequate. Wearing personal protective equipment suitable

For emergency responders: Liquid product spills generate fire hazard and can form an explosive atmosphere. Keep ignition sources and hot metal surfaces away from spilling /spilling whenever safe. It is recommended to use equipment explosion-proof electric. Stay in a position contrary to the direction of the wind and

Stay away from the spill/leak. Avoid direct contact with the material. For large spills, notify downwind persons regarding the spill/leak of the need to immediately isolate the risk area and keep all unauthorized personnel away. Wear appropriate protective equipment, including respiratory protection, as conditions require (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

6.2 Environmental precautions

Avoid dispersion of spilled material, its contact with soil, aquatic environment, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, canals, soil or air). It can be harmful to the environment if released in large quantities. Collect spills. Explosive properties.

6.3 Methods and material for containment and cleaning up

Small spill

Use spark-proof tools and explosion-proof equipment. Dilute with water and wash if it is soluble in water, or if it is insoluble in water, absorb with an inert dry material and place in a suitable waste container. Arrange through an authorized contractor for disposal .

Big spill

Stop the leak if this does not pose any risk. Remove containers from the spill area. Use spark-proof tools and explosion-proof equipment. Approach the discharge in the direction of the wind. Avoid entering sewers, water channels, basements or small areas. Wash spills at a wastewater treatment plant or proceed as follows. Stop and collect spills with non-combustible absorbent materials such as sand, soil, vermiculite, or diatomaceous earth, and place the material in a container for disposal according to local regulations. Arrange through an authorized contractor for disposal. Contaminated absorbent material may present the same risk as spilled product. See section 1 for contact information and the section 13 for waste disposal.

SECTION 7

HANDLING AND STORAGE

7.1 Precautions for safe handling

Safe handling guidelines

Keep away from heat, hot surfaces, sparks, open flames and any other source of ignition. No smoking. Take precautionary measures against electrostatic discharge. Use only tools that do not produce sparks. Wear gloves/clothing/goggles/protective mask. Wash thoroughly after handling the product. Apply good personal hygiene practices and use appropriate personal protective equipment (see Section 8). Easily flammable It can easily evaporate at room temperature. Vapor is heavier than air and can create an explosive mixture with air. Pay attention to accumulation in confined spaces and low-lying areas. Open the container slowly to release the pressure. The use of explosion-proof electrical equipment is recommended and may be mandatory (see relevant fire codes). Refer to NFPA-70 and/or API RP 2003 for specific connection and grounding requirements. Do not enter confined spaces such as tanks or wells without following proper access procedures, such as ASTM D-4276 and 29 CFR 1910.146. Do not wear contaminated clothing or footwear. Keep contaminated clothing away from sources of ignition such as sparks or open flames. Static Electricity Accumulation Hazard: When handling this material, electrostatic charges can accumulate and create hazardous conditions. To minimize that

Danger is necessary, but may not be sufficient on its own, to proceed to the grounding and electrical interconnection of tanks, transfer pipes and level floats of storage tanks. Review all operations with potential for generation and accumulation of electrostatic charges and/or flammable atmospheres (including tank and container filling, free-fall filling, tank cleaning, sampling, calibration, load change, filtration, mixing, agitation, and vacuum system tank truck operations) and use appropriate mitigation procedures. Particular attention should be paid to ensuring that special slow loading procedures are followed in cases of "charge switching" to avoid the danger of electrostatic ignition that may exist when a material with a higher flash point (such as fuel oil or diesel) is loaded into tanks that previously contained products with a low flash point (such as gasoline or naphtha). For more information, refer to the U.S. OSHA Flammable and Combustible Liquids Standard (29 CFR 1910.106, "Flammable and Combustible Liquids"), the National Fire Protection Association's recommended practice regarding electrostatic electricity (NFPA 77, "Recommended Practice on Static Electricity").) and/or the 2003 recommended practice of the American Petroleum Institute (API) with respect to protection against ignitions resulting from static electricity, lightning and deflected currents ("Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents").

Guidelines on general occupational hygiene:

It is forbidden to eat, smoke or drink in the places where this product is stored, handled or treated. People who work with this product should wash their hands and face before eating, smoking or drinking. Remove contaminated clothing and protective equipment before entering dining areas. See also section 8 for additional information on hygienic measures.

7.2 Conditions for safe storage, including incompatibilities

Warehouse and container requirements:

Store in accordance with local regulations. Store in a separate, approved area. Store in an original container protected from direct sunlight in a dry, cool and well-ventilated area, separated from incompatible materials (see section 10), food and drink. Indicate in the area "Do not smoke or use open flame" Keep under lock and key. Remove all sources of ignition. Keep separate from oxidizing materials. Keep the container tightly closed and sealed until it is time to use it. Containers that have been opened should be carefully closed and kept upright to avoid spills. Do not store in unidentified containers. Use an appropriate safety container to prevent environmental contamination.

"Empty" containers retain waste that can be hazardous. Do not pressurize or cut, or weld with a blowtorch, copper or tin, or drill, grind or expose these containers to heat, flame, sparks or other sources of ignition. They can explode and cause injury or even death. "Empty" drums should drain well, properly capped, and immediately sent to the supplier or reconditioning. All containers must be disposed of in an environmentally safe manner and in accordance with official regulations. Before working with tanks that contain or have contained this material, you should consult OSHA, ANSI Z49.1, and other references regarding cleaning, repair, welding, and other operations contemplated.

Additional details:

Bulk storage conditions: Keep all storage tanks in accordance with applicable regulations. Use the necessary controls to monitor tank inventories. Inspect all storage tanks periodically. Perform airtightness tests on tanks and associated pipe. Maintain automatic leak detection devices to ensure proper working conditions.

7.3 Specific end-use (s)

Solvent

SECTION 8	EXPOSURE CONTROLS / PERSONAL PROTECTION
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8.1 Control parameters

Occupational exposure limit values

INGREDIENT	GUY	LIMIT	VALUE
n-hexane	ACGIH	TWA	50 ppm, 8 hrs. skin
	OSHA	T	500 ppm 8 hrs.
		W	1800 mg/m ³ 8 hrs.
		A	
		T	
W			
	A		

8.2 Appropriate technical controls

Use only with adequate ventilation. Use process enclosures, local ventilation systems, or other engineering procedures to keep the worker exposed to airborne contaminants below all recommended or statutory limits. Engineering controls must also keep gas, vapor, or dust below the lowest explosion limit. Use explosion ventilation equipment.

8.3 Environmental exposure controls

Emissions from ventilation equipment or work processes must be evaluated to verify that they comply with the requirements of environmental protection legislation. In some cases, the use of smoke eliminators, filters or process equipment design modifications will be necessary to reduce emissions to an acceptable level.

8.4 Individual protective measures

Hygienic measures:

Wash hands, forearms, and face thoroughly after handling chemicals, before eating, smoking, and using the sink, and at the end of the work period. Use appropriate techniques to remove contaminated clothing. Wash contaminated clothing before reuse. Make sure eyewash stations and emergency showers are in place

Eye/face protection

Near work areas

Eye protection that meets or exceeds ANSI Z 87.1 is recommended to protect against possible eye contact, irritation or injury. Depending on the conditions of use, it may be necessary a face shield.

Skin protection
Hand protection

It is advisable to use waterproof gloves against the specific material being handled in order to prevent contact with the skin. Users should consult manufacturers to confirm the penetration resistance of their products. Suggested protective materials: Nitrile.

Body protection:

Protective equipment for the body should be selected based on the tasks to be performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition by static electricity, wear antistatic protective clothing. For greater protection against electrostatic discharge, the Protection should include: coveralls, boots and antistatic gloves.

Other skin protection:

Before handling this product, appropriate footwear and any additional skin protection measures should be selected, based on the activity being carried out and the risks involved, and these should be approved by a specialist. Leather boots do not protect from contact with liquid.

Respiratory protection: When there is possible exposure through the air above the limit, a NIOSH-certified and filter-equipped air-purifying respirator may be used. Filters/cartridges can be used against organic vapors. A respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 must be implemented when working conditions require the use of a respirator. Respirators air purification provides limited protection and cannot be used in atmospheres

exceeding the maximum concentration of use (as defined by regulations or manufacturer's instructions), in situations of deficient oxygen (less than 19.5 percent oxygen) or under conditions that are imminently dangerous to life and health.

General considerations: hygiene Consult a supervisor for special operating instructions. Avoid contact with eyes. Avoid contact with skin. Keep food and beverage material away. Wash your hands before finishing the work or immediately after handling the material. Provide emergency eyewash stations and showers. Maintain yourself according to good practices of Hygiene and Industrial Safety.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

BOILING TEMPERATURE (°C)	62.8	MELTING TEMPERATURE (°C)	-95
FLAMMABILITY TEMPERATURE (°C)	-26	AUTO-IGNITION TEMPERATURE (°C)	258
RELATIVE DENSITY AT 25 °C (WATER=1)	0.667	PH	ND
MOLECULAR WEIGHT	86	FITNESS	LIQUID
COLOUR	Colourless	VAPOUR DENSITY (AIR=1)	3.0
EVAPORATION RATE (EVAPORATION ACETATE) BUTILE=1)	8.1	SOLUBILITY IN WATER	Insoluble
VAPOUR PRESSURE (25° C)	150 mm Hg	PERCENTAGE OF VOLATILITY	100%
LOWER EXPLOSIVE LIMIT	1.2% VOL	UPPER LIMIT OF EXPLOSIVENESS	7.7% VOL
SMELL	Characteristic		

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity Not chemically reactive.

10.2 Chemical stability The vapors form potentially explosive mixtures with air. As they are heavier than air, they advance at ground level and can generate flame return over long distances if ignited. They can be charged electrostatically.

10.3 Possibility of hazardous reactions Under normal conditions of storage and use, dangerous reactions will not occur.

10.4 Conditions to avoid Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, sheath, drill, grind or expose containers to heat or ignition sources. Do not allow steam to build up in low-lying or confined areas. Do not store with strong oxidizing agents.

10.5 Incompatible materials

Strong oxidizing and reducing agents.

10.6 Hazardous decomposition products

In case of fire: carbon monoxide and carbon dioxide can be released.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

Product/Ingredient	Result	Species	Dose	Exposition
Hexane	LC50 Inhalation	Rat	>20 mg/L vapour	Unlikely to be harmful.
	LD50	Rabbit	>2g/kg	
	Dermal	Rat	>5g/kg	
	LD50 Oral			

Aspiration hazard

It can be fatal if swallowed and penetrated into the airways.

Skin corrosion or irritation.

Causes skin irritation. Repeated exposure can lead to dryness or cracking of the skin.

Eyes

It may cause mild eye irritation.

Inhalation

It can cause irritation to the respiratory tract.

Sensitization

Skin

No information available.

Inhalation:

No information available.

11.2 Specific organ toxicity (single exposure)

Drowsiness or dizziness may occur.

11.3 Specific organ toxicity (repeated exposure)

It can cause organ damage after prolonged or repeated exposure. Based on component information.

Potential chronic health effects

Carcinogenicity:

No information is available on the mixture; However, none of its components has been classified for carcinogenicity (or below the concentration limit for classification).

Mutagenicity:

No information is available on the mixture, but none of its components have been classified as to cell mutagenicity of germs (or are below the limit concentration to be classified).

Teratogenicity

It is suspected that it may harm the fetus.

Fertility effects:

It is suspected of impairing fertility. Based on component information.

Other comments:

There are reports that have associated repeated and prolonged occupational overexposure to solvents with permanent damage to the brain and nervous system (sometimes referred to as Solvent or Painter Syndrome). Intentional misuse by deliberate concentration and inhalation of this material can be harmful or even lethal.

11.4 information on the toxicological effects of the components.

Hexane

Reproductive toxicity: Prolonged exposure to high concentrations of n-hexane (>1000 ppm) resulted in decreased sperm count and degenerative changes in the testes of rats, but not in those of mice.

Target organ(s): Excessive exposure to n-hexane can lead to peripheral neuropathies. The initial symptoms are symmetrical sensory insensitivity and paresthesia in the distal parts of the extremities. Motor weakness is commonly seen in the muscles of the fingers and toes, but may also involve those of the arms, thighs and forearms. The onset of these symptoms may be delayed

from several months to a year after the onset of exposure. The neurotoxic properties of n-hexane are enhanced by exposure to methyl ethyl ketone and methyl isobutyl ketone.

Hexanes, other

Target organ(s): A mixture of hexane isomers, free of n-hexane, produced no neurotoxic effects in rats exposed to 500 ppm for six months.

SECTION 12	ECOLOGICAL INFORMATION
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12.1 Toxicity to aquatic organisms

GHS Classification:	
H411	Dangerous for the aquatic environment, chronic toxicity. Category 2. Toxic to aquatic organisms, with long-lasting harmful effects.

Conclusions/General

Experimental studies conducted with n-hexane show that the acute aquatic toxicity values are 2.1 mg/L and more than 1000 mg/L. N-hexane is classified as toxic to aquatic organisms, with long-lasting harmful effects according to the criteria of the Globally Harmonized System (GHS).

12.2. Persistence and degradability

Conclusions/General

Volatilization from the ground surface is expected to be an important environmental fate process. N-hexane is degraded in the atmosphere by reaction with hydroxyl radicals; The half-life of that reaction in air is estimated at 3 days. Screening studies suggest that n-hexane undergoes biodegradation on soil and water surfaces, but volatilization is expected to be the target process in the predominant environment. It is not expected that Hydrolysis is an important environmental fate process.

12.3 Bioaccumulative potential

Product/Ingredient	LogP _{ow}	FBC	Potential
Hexane	3.9	200	High

Conclusions/General

An estimated bioconcentration factor (BCF) of 200 and a log Kow of 3.9 for n-hexane suggest that the potential for bioconcentration in aquatic organisms is high. Metabolites can partially bioaccumulate in the lipid bilayer of fish tissues.

12.4 Mobility on the ground

Conclusions/General

N-hexane is highly volatile and experiences rapid air-splitting. When released into water, n-hexane is lost through volatilization and possible biodegradation. N-hexane is expected to have high mobility to soils/sediments based on a Koc value of 150. Volatilization from the surface of wet soils is expected to be an important environmental fate process based on a Henry's grade constant value of 1.83 atm-m³/mol. Based on its vapor pressure, n-hexane can volatilize from the surface of dry soils.

12.5 Other adverse effects

I don't know how to foresee it.

General Information:

Do not allow access to drains, surface water, or napas.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste disposal information

Removal methods:

Waste generation should be avoided or minimized where possible. The disposal of this product, its solutions and any derivatives must always comply with the requirements of environmental protection and waste disposal legislation and all requirements of local authorities. Dispose of surplus and non-recyclable products through an authorized disposal contractor. Waste should not be flushed down the sewer untreated unless it is compatible with the requirements of all authorities with jurisdiction. Discarded packaging should be recycled. Only incineration or burial when recycling is not feasible. Remove product residues and their

Contaminated packaging containers with all possible precautions. Care shall be taken when handling empty containers that have not been cleaned or rinsed. Empty containers or liners may retain product residue. Vapor from product waste can create a highly flammable or explosive environment inside the container. Do not trim, weld or shred used containers unless they have been thoroughly cleaned inside. Avoid dispersion of spilled material, its contact with soil, aquatic environment, drains and sewers.




Recommendation:

Contaminated packaging should be handled in the same way as the substance itself.

RCRA:

D001 classification, flammability characteristic.

SECTION 14 TRANSPORTATION INFORMATION

	DOT Classification	IMDG	IATA
UN NUMBER	UN 1208	 UN 1208	 UN 1208
OFFICIAL DESIGNATION OF TRANSPORT ACCORDING TO UN	Hexanes	Hexanes	Hexanes
TRANSPORT HAZARD CLASS(S)	3 	3	3
PACKAGING GROUP	II	II	II
ENVIRONMENTAL RISKS	Marine pollutant	Marine pollutant	Marine pollutant

Product Name: HEXANE IMP
 Review Date: 26 July 2022
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Special precautions for the user: Transportation within user facilities: always transport in closed containers that are vertical and safe. Ensure that the people transporting the product know what to do in the event of an accident or spill. Containers larger than 5 liters (liquid) or 5 kilograms (solids) transported by water and ALL bulk shipments may require that the shipping description include the notation "Marine Pollutant" [49 CFR 172.203(l)] and the container display the [marine pollutant mark] [49 CFR 172.322].

Bulk transport according to Annex II to the Convention MARPOL 73/78 and GRC code (IBC) Not applicable.

SECTION 15	REGULATORY INFORMATION
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15.1 Safety, health and environmental regulations specific to this product.

This document has been prepared in accordance with the requirements of the Safety Data Sheet (MSDS) of the Hazard Communication Standard and the Global Harmonization System (GHS).
 There are no known national and/or regional regulations that apply to this product (including its Ingredients).

15.2 International regulations

Mexico

This safety sheet complies with the legal regulations of **NOM-018-STPS-2015**

Federal Regulations USA: **U.S. Inventory of Substances (TSCA 8b):** All components are listed or are exempt.

CERCLA / SARA - Section 302 Extremely Hazardous Substances and TPQ (in pounds): This material does not contain chemicals subject to the requirements of SARA 302 and 40 CFR 372.

w CERCLA/SARA - Section 311/312 (Title III, Hazard categories)
Acute health hazard Yes
Chronic health hazard Yes
Fire hazard Yes
Pressure hazard: No
Reaction risk No

w CERCLA/SARA - Section 313 and 40 CFR 372: This material contains the following chemicals subject to the reporting requirements of the SARA Section 313 and 40 CFR 372:

Chemical name	Concentration	De minimis
N-hexane	>60	1%

w EPA (CERCLA) Quantity Reportable (in pounds): The EPA petroleum exclusion applies to this material - (CERCLA 101(14)).

California Proposition 65: This material does not contain any chemicals that the State of California believes causes cancer, birth defects, or other reproductive harm in concentrations that trigger the notification requirements of California Proposition 65.

Canada This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by these regulations.

International inventories All components are included in the DSL list or are exempt from listing requirements.

SECTION 16	OTHER INFORMATION
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16.1 ABBREVIATIONS AND ACRONYMS

ACGIH	American Conference of Industrial Hygienists Government	NFPA	National Fire Protection Agency
CNS	Central nervous system	NIOSH	National Institute of Occupational Safety and Health
CEILING	Maximum limit (15 minutes)	NE	Not established.
CAS	Chemical Abstract Service	NTP	National Toxicology Program
EC50	Effective concentration	NOAEL	Dose with no observed adverse effect
EC50	Average effective concentration	NOEC	Concentration with no observed effect
PEL	Tolerable exposure limit	OSHA	Occupational Safety and Health Administration
ETA	Acute toxicity estimation	FCB	Bioconcentration Factor
GHS	System Globally Harmonized, GHS.	PRNT	Presumed non-toxic
>=	Greater than or equal to	RCRA	Resource Conservation and Recovery Act
IC50	Mean inhibitory concentration	STEL	Short-term exposure limit
IARC	International Agency for Research on Cancer	SARA	Superfund Amendments and Reauthorization Act
<=	Less than or equal to	TLV	Threshold limit value
LC50	Mean lethal concentration	TWA	Time-weighted average
IBC	Intermediate container for bulk products	TSCA	Toxic Substances Control Act
Log K _{ow}	Logarithm of Octanol/water Partition Coefficient	UVCB	Unknown or Variable Composition, Complex Reaction Products and Biological Materials
		WHMIS	Workplace Hazardous Materials Information System (Canada)
LD50	Average lethal dose	IATA	International Air Transport Association
LOAEL	Minimum dose with observed adverse effect	IMGD	International Maritime Code for Dangerous Goods
MARPOL 73/78	International Convention for the Prevention of Pollution from Ships, 1973 with the Protocol of 1978. ("Marpol = marine pollution)		

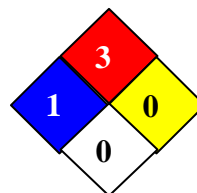
16.2 Full text of the H-Declarations referred to in sections 2 and 3.

H225	Highly flammable liquids and vapours
H304	It can be fatal if swallowed and penetrated into the airways. Causes skin irritation
H315	It can cause drowsiness or vertigo.
H336	It can cause organ damage after prolonged or repeated exposure. It is suspected
H373	of impairing fertility or harming the fetus.
H361f	
H411	Toxic to aquatic organisms, with long-lasting harmful effects

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16.3 CLASSIFICATION NFPA

NFPA Health Risk Rating: 1 (Light)
Fire: 3 (Flammable)
Reactivity: 0 (Minimum) Special warnings: None



NOTE:

The information contained in this Product Safety Data Sheet is believed to be accurate and reliable up to the date of its preparation, but no representation, commitment, or warranty, express or implied, is given as to the accuracy, reliability or completeness of the information provided. This information was collected with the intention of complying with hazardous substance risk communication regulations. It is the responsibility of the user to determine the appropriate use of the product for their own use. FORTEQUIM does not assume any legal responsibility in the dependence on the information described here.