

Section 1: Product and Company Identification

Absolute Accuracy
4591 S Wayside Dr
Houston, TX 77087
(832) 571-2387

Product Code: 2785

Synonyms:
Recommended Use:
Usage Restrictions:

Section 2: Hazards Identification



Danger

Hazard Classification:

Aspiration Hazard (Category 1)
Gases Under Pressure
Reproductive Toxicity (Category 2)
Specific target organ toxicity (Repeated Exposure) (Category 2)
Specific target organ toxicity (Single Exposure) (Category 3)

Hazard Statements:

Contains gas under pressure; may explode if heated
May be fatal if swallowed and enters airways
May cause damage to organs through prolonged or repeated exposure
May cause respiratory irritation;
Suspected of damaging fertility or the unborn child
Toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention:

Do not breathe dust/fume/gas/mist/ vapors/spray..
[In case of inadequate ventilation] wear respiratory protection.
Do not handle until all safety precautions have been read and understood.
Use only outdoors or in a well-ventilated area.
Wear protective gloves, protective clothing, eye protection and face protection.
Obtain special instructions before use.

Response:

Do NOT induce vomiting.

If inhaled: Remove person to fresh air and keep comfortable for breathing.
 If swallowed: Rinse mouth. Do NOT induce vomiting.
 Immediately call a poison center or doctor.
 If exposed or concerned: Get medical advice/attention.

Storage:

Store in a well-ventilated place. Keep container tightly closed.
 Protect from sunlight.
 Store locked up.

Disposal:

Dispose of contents and/or container in accordance with applicable regulations.

Section 3: Composition/Information on Ingredients

	CAS #	Concentration
n-Hexane	110-54-3	ppm 5000
Helium	7440-59-7	balance

	Chemical Substance	Chemical Family	Trade Names
n-Hexane	N-HEXANE	Hydrocarbons, Aliphatic, Saturated	HEXANE; HEXYL HYDRIDE; NORMAL HEXANE; SKELLYSOLVE B; UN 1208; CAPROYL HYDRIDE; C6H14
Helium	HELIUM	Inorganic gases	HELIUM GAS; HELIUM COMPRESSED; HELIUM-4; ATOMIC HELIUM; UN 1046; He

Section 4: First Aid Measures

	Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
n-Hexane	Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.	Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.	Aspiration hazard. DO NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Get immediate medical attention. Give artificial respiration if not breathing.	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.	For inhalation, consider oxygen.
Helium	Wash exposed skin with soap and water.	Flush eyes with plenty of water.	If a large amount is swallowed, get medical attention.	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.	For inhalation, consider oxygen.

Section 5: Fire Fighting Measures

	Suitable Extinguishing Media	Products of Combustion	Protection of Firefighters
n-Hexane	Regular dry chemical, carbon dioxide, water, regular foam Large fires: Use regular foam or flood with fine water spray.	Carbon monoxide, carbon dioxide and toxic and irritating fumes	<ul style="list-style-type: none"> ▪ Any self-contained breathing apparatus that has a full facepiece. ▪ Any self-contained breathing apparatus that has a full facepiece.
Helium	Non-flammable. Use suitable extinguishing media for surrounding fire.	Non-flammable	<ul style="list-style-type: none"> ▪ Non-flammable ▪ Non-flammable

Section 6: Accidental Release Measures

	Personal Precautions	Environmental Precautions	Methods for Containment
n-Hexane	Keep unnecessary people away, isolate hazard area and deny entry.	Avoid heat, flames, sparks and other sources of ignition.	Stop leak if possible without personal risk. Reduce vapors with water spray. Remove sources of ignition.
Helium	Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.	Avoid soil, waterways, drains and sewers	Stop leak if possible without personal risk.

	Methods for Cleanup	Other Information
n-Hexane	Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal.	Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).
Helium	Stop leak, evacuate area. Contact emergency personnel.	None

Section 7: Handling and Storage

	Handling	Storage
n-Hexane	Store and use with adequate ventilation. Firmly secure cylinders upright to keep them from falling or being knocked over. Screw valve protection cap firmly in place by hand. Store only where temperature will not exceed 125F (52C). Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full cylinders for long periods.	Do not get liquid in eyes, on skin, or clothing. Protect cylinders from damage. Use a suitable hand truck to move cylinders; do not drag, roll, slide, or drop. Open valve slowly. Close cylinder valve after each use; keep closed even when empty. If valve is hard to open, discontinue use and contact your supplier.
Helium	Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101.	Keep separated from incompatible substances.

Section 8: Exposure Controls/Personal Protection

	Exposure Guidelines
n-Hexane	N-HEXANE: 500 ppm (1800 mg/m ³) OSHA TWA 50 ppm (180 mg/m ³) OSHA TWA (vacated by 58 FR 35338, June 30, 1993) 50 ppm ACGIH TWA (skin) 50 ppm (180 mg/m ³) NIOSH recommended TWA 10 hour(s)
Helium	HELIUM: ACGIH (simple asphyxiant)

Engineering Controls

Handle only in fully enclosed systems.

	Eye Protection	Skin Protection	Respiratory Protection
n-Hexane	Wear splash resistant safety goggles with a face shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.	Wear appropriate chemical resistant clothing.	Any self-contained breathing apparatus that has a full facepiece.
Helium	Eye protection not required, but recommended.	Protective clothing is not required.	Non-flammable

General Hygiene considerations

- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

Section 9: Physical and Chemical Properties

	Physical State	Appearance	Color	Change in Appearance	Physical Form	Odor	Taste
n-Hexane	Liquid	Clear	Colorless	N/A	Liquid	Faint odor, gasoline odor	N/A
Helium	Gas	Colorless	Colorless	N/A	Gas	Odorless	Tasteless

	Flash Point	Flammability	Partition Coefficient	Autoignition Temperature	Upper Explosive Limits	Lower Explosive Limits
n-Hexane	-8 F (-22 C) (CC)	IB	139315.68 (log = 5.148) (estimated from water solubility)	437 F (225 C)	0.075	0.011
Helium	Not flammable	Not available	Not available	Nonflammable	Nonflammable	Nonflammable

	Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity	Water Solubility	pH	Odor Threshold	Evaporation Rate	Viscosity
n-Hexane	156 F (69 C)	-139 F (-95 C)	124 mmHg @ 20 C	3 (Air=1)	0.6603	0.014% @ 20 C	Neutral	64-244 ppm	15.8 (butyl acetate=1)	0.32 cP @ 25 C
Helium	-452 F (-269 C)	-458 F (-272 C) @ 26 atm	1719 mmHg @ -268 C	0.138 (Air=1)	Not applicable	0.94% @ 0 C	Not applicable	Not available	Not applicable	0.02012 cP @ 26.8 C

	Molecular Weight	Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
n-Hexane	86.18	C-H3-(C-H2)4-C-H3	Not available	Not available	Not available	1	Soluble: Alcohol, ether, chloroform, acetone, organic solvents
Helium	4.0026	He	0.1785 g/L @ 0 C	Not available	100%	Not applicable	Insoluble: Not available

Section 10: Stability and Reactivity

	Stability	Conditions to Avoid	Incompatible Materials
n-Hexane	Stable at normal temperatures and pressure.	Stable at normal temperatures and pressure.	Oxidizing materials, halogens, combustible materials, chlorine dioxide, fluorine, nitrogen dioxide, chlorine, chlorosulfuric acid
Helium	Stable at normal temperatures and pressure.	Stable at normal temperatures and pressure.	No data available.

	Hazardous Decomposition Products	Possibility of Hazardous Reactions
n-Hexane	Oxides of carbon	Will not polymerize.
Helium	Miscellaneous decomposition products	Will not polymerize.

Section 11: Toxicology Information

Acute Effects

	Oral LD50	Dermal LD50	Inhalation
n-Hexane	>5 gm/kg oral-rat LD50	>2 gm/kg skin-rabbit LD50	Irritation, nausea, irregular heartbeat, headache, drowsiness, dizziness, mood swings, loss of coordination, lung congestion, nerve damage, brain damage, unconsciousness, central nervous system depression
Helium	Not available	Not available	Nausea, vomiting, difficulty breathing, irregular heartbeat, headache, fatigue, dizziness, disorientation, emotional disturbances, tingling sensation, loss of coordination, suffocation, convulsions, unconsciousness, coma

	Eye Irritation	Skin Irritation	Sensitization
n-Hexane	Irritation	Irritation	Reproductive toxicity, Category 2; H361f: Suspected of damaging fertility. Aspiration hazard, Category 1; H304: May be fatal if swallowed and enters airways. Specific Target Organ Toxicity (repeated exposure), Category 2; H373: May cause damage to organs through prolonged or repeated exposure. Skin irritation, Category 2; H315: Causes skin irritation. Specific Target Organ Toxicity (single exposure), Category 3; H336: May cause drowsiness or dizziness.
Helium	Liquid: frostbite, blurred vision	Liquid: frostbite	Difficulty breathing

Chronic Effects

	Carcinogenicity	Mutagenicity	Reproductive Effects	Developmental Effects
n-Hexane	Not available	Available.	Available.	No data
Helium	Not available	Not available	Not available	No data

Section 12: Ecological Information

Fate and Transport

	Eco toxicity	Persistence / Degradability	Bioaccumulation / Accumulation	Mobility in Environment
n-Hexane	Fish toxicity: Acute LC50 113000 ug/L Fresh water Fish - Mozambique tilapia - Tilapia mossambica - 99 mm - 10 g 96 hours; 2500 ug/L 96	Highly volatile from water.	Accumulates very little in the bodies of living organisms.	Relatively non-persistent in the environment. Not expected to leach through the soil or the sediment.

	hour(s) LC50 (Mortality) Fathe Invertebrate toxicity: Not available Algal toxicity: 75 ug/L 28 hour(s) (Population Growth) Green algae (Chlamydomonas sp) Phyto toxicity: Not available Other toxicity: Not available			
Helium	Fish toxicity: Not available Invertebrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Not available	Not available	Not available

Section 13: Disposal Considerations

n-Hexane	Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.
Helium	Dispose in accordance with all applicable regulations.

Section 14: Transportation Information

U.S. DOT 49 CFR 172.101

DOT Information For This Mixture

Shipping Name	Compressed gas, n.o.s. (Helium, n-Hexane)
UN Number	UN1956
Hazard Class	2.2
Hazard Information	Non-Flammable Gas

Individual Component Information

	Proper Shipping Name	ID Number	Hazard Class or Division	Packing Group	Labeling Requirements	Passenger Aircraft or Railcar Quantity Limitations	Cargo Aircraft Only Quantity Limitations	Additional Shipping Description
n-Hexane	Hexanes	UN1208	3	II	3	N/A	N/A	N/A
Helium	Helium, compressed	UN1046	2.2	Not applicable	2.2	75 kg or L	150 kg	N/A

Canadian Transportation of Dangerous Goods

	Shipping Name	UN Number	Class	Packing Group / Risk Group
n-Hexane	Hexanes	UN1208	3	II

Helium	Helium, compressed	UN1046	2.2	Not applicable
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Section 15: Regulatory Information

U.S. Regulations

	CERCLA Sections	SARA 355.30	SARA 355.40
n-Hexane	5000 LBS RQ	Not regulated.	Not regulated.
Helium	Not regulated.	Not regulated.	Not regulated.

SARA 370.21

	Acute	Chronic	Fire	Reactive	Sudden Release
n-Hexane	Yes	Yes	Yes	No	No
Helium	Yes	No	No	No	Yes

SARA 372.65

n-Hexane	N-HEXANE
Helium	Not regulated.

OSHA Process Safety

n-Hexane	Not regulated.
Helium	Not regulated.

State Regulations

	CA Proposition 65
n-Hexane	WARNING: This product can expose you to chemicals including n-Hexane which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov .
Helium	Not regulated.

Canadian Regulations

	WHMIS Classification
n-Hexane	B2, D2A.
Helium	A

National Inventory Status

	US Inventory (TSCA)	TSCA 12b Export Notification	Canada Inventory (DSL/NDL)
n-Hexane	Listed on inventory.	Not listed.	Listed on DSL.
Helium	Listed on inventory.	Not listed.	Not determined.

Section 16: Other Information

	NFPA Rating
n-Hexane	HEALTH=2 FIRE=3 REACTIVITY=0
Helium	HEALTH=0 FIRE=0 REACTIVITY=0 SPECIAL=SA

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard