

#### Hexane

## 215-4X4L

Version 1.0 Revision Date 08/08/2020 Print Date 12/20/2024

#### **SECTION 1. IDENTIFICATION**

Product name Hexane

Number 000000025425

Product Use Description Solvent

Manufacturer or supplier's

details

Honeywell International Inc.

115 Tabor Road

Morris Plains, NJ 07950-2546

For more information call 1-800-368-0050

+1-231-726-3171(Monday-Friday, 9:00am-5:00pm)

In case of emergency call: Medical: 1-800-498-5701 or +1-303-389-1414

Transportation (CHEMTREC): 1-800-424-9300 or

+1-703-527-3887

(24 hours/day, 7 days/week)

#### **SECTION 2. HAZARDS IDENTIFICATION**

#### **Emergency Overview**

: liquid, clear Form

Color : colourless

Odor : mild hydrocarbon-like

#### Classification of the substance or mixture

or mixture

Classification of the substance : Flammable liquids, Category 2 Skin irritation, Category 2

Reproductive toxicity, Category 2

Specific target organ toxicity - single exposure, Category 3,

Central nervous system

Specific target organ toxicity - repeated exposure, Category 2,

Peripheral nervous system, Central nervous system

Aspiration hazard, Category 1

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#### GHS Label elements, including precautionary statements

Symbol(s) :







Signal word : Danger

Hazard statements : Highly flammable liquid and vapour.

May be fatal if swallowed and enters airways.

Causes skin irritation.

May cause drowsiness or dizziness.

Suspected of damaging fertility or the unborn child.

May cause damage to organs through prolonged or repeated

exposure.

Precautionary statements : Prevention:

Obtain special instructions before use.

Do not handle until all safety precautions have been read and

understood.

Keep away from heat/ sparks/ open flames/ hot surfaces. No

smokina.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ ventilating/ lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

Wash skin thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/ protective clothing/ eye protection/ face

protection.

Response:

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

IF INHALED: Remove victim to fresh air and keep at rest in a

position comfortable for breathing.

IF exposed or concerned: Get medical advice/ attention.

Do NOT induce vomiting.

If skin irritation occurs: Get medical advice/ attention.



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Take off contaminated clothing and wash before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:

Store in a well-ventilated place. Keep container tightly closed.

Keep cool. Store locked up.

Disposal:

Dispose of contents/ container to an approved waste disposal

plant.

#### Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

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

Formula : C6H14

Chemical nature : Substance

Chemical name	CAS-No.	Concentration
n-Hexane	110-54-3	>95.00 %
Other Hexanes	-	<5.00 %

#### **SECTION 4. FIRST AID MEASURES**

Inhalation : Call a physician immediately. Remove to fresh air. If not

breathing, give artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is

present.

Skin contact : Wash off immediately with plenty of water for at least 15

minutes. Take off contaminated clothing and shoes immediately.

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Wash contaminated clothing before re-use. Call a physician.

Eye contact : Rinse immediately with plenty of water, also under the eyelids,

for at least 15 minutes. Call a physician.

Ingestion : Do not induce vomiting without medical advice. If a person

vomits when lying on his back, place him in the recovery position. Call a physician immediately. Never give anything by

mouth to an unconscious person.

Notes to physician

Indication of immediate medical attention and special treatment needed, if

: Treat symptomatically.

necessary

#### **SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Foam

Carbon dioxide (CO2)

Dry chemical

Cool closed containers exposed to fire with water spray.

Unsuitable extinguishing

media

: Do not use a solid water stream as it may scatter and spread

fire.

Specific hazards during

firefighting

: Extremely flammable.

Vapours may form explosive mixtures with air.

Vapours are heavier than air and may spread along floors. Vapors may travel to areas away from work site before

igniting/flashing back to vapor source.

In case of fire hazardous decomposition products may be

produced such as: Carbon monoxide Carbon dioxide (CO2)

Special protective equipment

for firefighters

: Wear self-contained breathing apparatus and protective suit.

#### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

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Personal precautions, protective equipment and emergency procedures Wear personal protective equipment. Unprotected persons

must be kept away.

Immediately evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Ensure adequate ventilation. Remove all sources of ignition.

Do not swallow.

Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.

Environmental precautions : Prevent further leakage or spillage if safe to do so.

Prevent product from entering drains.

Discharge into the environment must be avoided.

Do not flush into surface water or sanitary sewer system. Do not allow run-off from fire fighting to enter drains or water

courses.

Methods and materials for containment and cleaning

up

Ventilate the area.

No sparking tools should be used. Use explosion-proof equipment.

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to

local / national regulations (see section 13).

#### **SECTION 7. HANDLING AND STORAGE**

#### Handling

Precautions for safe

handling

: Wear personal protective equipment.

Use only in well-ventilated areas. Keep container tightly closed.

Do not smoke.

Do not swallow.

Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.

Advice on protection against :

fire and explosion

Keep away from fire, sparks and heated surfaces.

Take precautionary measures against static discharges.

Ensure all equipment is electrically grounded before beginning

transfer operations.

Use explosion-proof equipment.

Keep product and empty container away from heat and sources

of ignition.

No sparking tools should be used.

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No smoking.

**Storage** 

Conditions for safe storage,

including any incompatibilities

Store in area designed for storage of flammable liquids. Protect

from physical damage.

Keep containers tightly closed in a dry, cool and well-ventilated

place.

Containers which are opened must be carefully resealed and

kept upright to prevent leakage.

Keep away from heat and sources of ignition.

Keep away from direct sunlight.

Store away from incompatible substances.

Container hazardous when empty.

Do not pressurize, cut, weld, braze, solder, drill, grind or expose

containers to heat or sources of ignition.

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

Protective measures : Ensure that eyewash stations and safety showers are close to

the workstation location.

Engineering measures : Use with local exhaust ventilation.

Prevent vapour buildup by providing adequate ventilation during

and after use.

Eye protection : Do not wear contact lenses.

Wear as appropriate:

Safety glasses with side-shields If splashes are likely to occur, wear:

Goggles or face shield, giving complete protection to eyes

Hand protection : Solvent-resistant gloves

Gloves must be inspected prior to use.

Replace when worn.

Skin and body protection : Wear as appropriate:

Solvent-resistant apron

Flame retardant antistatic protective clothing.

If splashes are likely to occur, wear:

Protective suit

Respiratory protection : In case of insufficient ventilation wear suitable respiratory

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equipment.

For rescue and maintenance work in storage tanks use

self-contained breathing apparatus.

Use NIOSH approved respiratory protection.

Hygiene measures : When using, do not eat, drink or smoke.

Wash hands and face before breaks and immediately after

handling the product.

Keep working clothes separately.

Remove and wash contaminated clothing before re-use.

Do not swallow.

Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.

#### **Exposure Guidelines**

Components	CAS-No.	Value	Control	Upda	Basis
Components	CA3-NO.	value	parameters	te	Dasis
n-Hexane	110-54-3	SKIN_DE S : Skin designati on:	Danger of cutaneous absorption	01 2020	ACGIH:US. ACGIH Threshold Limit Values, as amended
n-Hexane	110-54-3	TWA: Time weighted average	(50 ppm)	2008	ACGIH:US. ACGIH Threshold Limit Values, as amended
n-Hexane	110-54-3	REL: Recomm ended exposure limit (REL):	180 mg/m3 (50 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
n-Hexane	110-54-3	PEL: Permissi ble exposure limit	1,800 mg/m3 (500 ppm)	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended



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on 1.0	R	Revision Date	08/08/2020		Print Date 12/20/2
n-Hexane	110-54-3	TWA : Time weighted average	180 mg/m3 (50 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Other Hexanes		TWA : Time weighted average	(500 ppm)	2008	ACGIH:US. ACGIH Threshold Limit Values, as amended
Other Hexanes		STEL : Short term exposure limit	(1,000 ppm)	2008	ACGIH:US. ACGIH Threshold Limit Values, as amended
Other Hexanes		Ceil_Tim e: Ceiling Limit Value and Time Period (if specified) :	1,800 mg/m3 (510 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Other Hexanes		REL: Recomm ended exposure limit (REL):	350 mg/m3 (100 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Other Hexanes		STEL: Short term exposure limit	3,600 mg/m3 (1,000 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Other Hexanes		TWA : Time weighted average	1,800 mg/m3 (500 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended



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

Physical state : liquid, clear

Color : colourless

Odor : mild hydrocarbon-like

Odor threshold : Note: No data available

pH : Note: Not applicable

Melting point/range : -95 °C

Boiling point/boiling range : 68.7 °C

Flash point : -15 °F (-26 °C)

Method: closed cup

Evaporation rate : Note: No data available

Lower explosion limit : 1.2 %(V)

Upper explosion limit : 7.7 %(V)

Vapor pressure : 165.32 hPa

at 20 °C(68 °F)

Vapor density : 3 Note: (Air = 1.0)

Density : 0.659 - 0.673 g/cm3 at 20 °C

Water solubility : Note: negligible

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Partition coefficient:

n-octanol/water

: Note: No data available

Ignition temperature

: 225 °C

Decomposition temperature

: Note: No data available

Viscosity, dynamic

: Note: No data available

Viscosity, kinematic

: Note: No data available

Molecular weight

: 86.18 g/mol

#### **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous

reactions Conditions to avoid : Hazardous polymerisation does not occur.

: Heat, flames and sparks.

Keep away from direct sunlight.

Incompatible materials : Oxidizing agents

> Halogens Oxygen

May attack many plastics, rubbers and coatings.

Hazardous decomposition

products

: In case of fire hazardous decomposition products may be

produced such as: Carbon monoxide

Carbon dioxide (CO2)



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#### **SECTION 11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity : LD50: 25,000 mg/kg

Species: Rat

Test substance: n-Hexane

Acute inhalation toxicity : LC50: 48000 ppm

Exposure time: 4 h Species: Rat

Test substance: n-Hexane

Acute dermal toxicity : LD50: 3,000 mg/kg

Species: Rabbit

Test substance: n-Hexane

Skin irritation : Species: Rabbit

Result: irritating

Test substance:n-Hexane

Eye irritation : Species: Rabbit

Result: slight irritation Test substance: n-Hexane

Repeated dose toxicity : Species: Rat

Application Route: Inhalation

Exposure time: 8 d Test substance: n-Hexane

Note: central nervous system effects structural abnormalities in

sperm 5,000 ppm

: Species: Rat

Application Route: Oral Exposure time: 90 d

LOAEL (Lowest observed adverse effect level): 1,140 mg/kg

Test substance: n-Hexane

Note: central nervous system effects testicular effects No

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observed adverse effect level

: Species: Rat

Application Route: Oral Exposure time: 90 d

LOAEL (Lowest observed adverse effect level): 4,000 mg/kg

Test substance: n-Hexane

Note: central nervous system effects testicular effects Lowest

observed adverse effect level

: Species: Rat

Application Route: Inhalation Test substance: n-Hexane

Note: Developmental Toxicity NOAEL (maternal toxicity) 1000

ppm NOAEL (developmental toxicity) 5,000 ppm

Genotoxicity in vitro : Test substance: n-Hexane

Note: In vitro tests did not show mutagenic effects

Genotoxicity in vivo : Test substance: n-Hexane

Note: In vivo tests did not show mutagenic effects

#### **SECTION 12. ECOLOGICAL INFORMATION**

#### **Ecotoxicity effects**

Toxicity to fish : LC50: 4.14 mg/l

Exposure time: 96 h

Species: Oncorhynchus mykiss (rainbow trout)

Test substance: n-Hexane

: LC50: 2.5 mg/l

Exposure time: 96 h

Species: Pimephales promelas (fathead minnow)

Test substance: n-Hexane

: LC50: 4.12 mg/l

Exposure time: 96 h

Species: Lepomis macrochirus (Bluegill sunfish)

Test substance: n-Hexane

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Toxicity to daphnia and other : LC50: 3.87 mg/l

aquatic invertebrates

Exposure time: 96 h

Species: Daphnia magna (Water flea)

Test substance: n-Hexane

#### Further information on ecology

Additional ecological

information

: Toxic to aquatic organisms, may cause long-term adverse

effects in the aquatic environment.

Should not be released into the environment.

#### **SECTION 13. DISPOSAL CONSIDERATIONS**

Disposal methods : Observe all Federal, State, and Local Environmental

regulations.

#### **SECTION 14. TRANSPORT INFORMATION**

DOT UN/ID No. : UN 1208

Proper shipping name : HEXANES

Class 3 Packing group Ш Hazard Labels 3

IATA UN/ID No. : UN 1208

Description of the goods : HEXANES

Class : 3 Packaging group : 11 Hazard Labels : 3 Packing instruction (cargo : 364

aircraft)

Packing instruction : 353

(passenger aircraft)

Packing instruction : Y341

(passenger aircraft)

: UN 1208 **IMDG** UN/ID No.

> Description of the goods : HEXANES

Class : 3 Packaging group : 11

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> Hazard Labels : 3

**EmS Number** : F-E, S-D Marine pollutant : yes

#### **SECTION 15. REGULATORY INFORMATION**

#### **Inventories**

US. Toxic Substances

Control Act

: On TSCA Inventory

Australia. Industrial

Chemical (Notification and

Assessment) Act

: On the inventory, or in compliance with the inventory

Canada. Canadian **Environmental Protection** Act (CEPA). Domestic

: All components of this product are on the Canadian DSL

Substances List (DSL)

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

: Other Hexanes

Korea. Existing Chemicals

Inventory (KECI)

: On the inventory, or in compliance with the inventory

Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control

Act

: On the inventory, or in compliance with the inventory

Chemical Substances

(IECSC)

China. Inventory of Existing : On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New

Zealand

: On the inventory, or in compliance with the inventory

#### **National regulatory information**

US. EPA CERCLA Hazardous Substances (40 The following component(s) of this product is/are subject to release reporting under 40 CFR 302 when release exceeds the

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CFR 302) Reportable Quantity (RQ):

Reportable quantity: 5000 lbs

: n-Hexane 110-54-3

SARA 302 Components : No chemicals in this material are subject to the reporting

requirements of SARA Title III, Section 302.

SARA 313 Components : The following components are subject to reporting levels

established by SARA Title III, Section 313:

: n-Hexane 110-54-3

SARA 311/312 Hazards : Fire Hazard

Acute Health Hazard Chronic Health Hazard

**CERCLA Reportable** 

Quantity

: 5000 lbs

California Prop. 65

**WARNING:** This product can expose you to chemicals, listed below, known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go

to www.P65Warnings.ca.gov.

 Benzene
 71-43-2

 n-Hexane
 110-54-3

 Benzene
 71-43-2

Massachusetts RTK : n-Hexane 110-54-3

: Benzene 71-43-2

New Jersey RTK : n-Hexane 110-54-3

: Other Hexanes

Pennsylvania RTK : n-Hexane 110-54-3

: Other Hexanes

#### **SECTION 16. OTHER INFORMATION**

	HMISIII	NFPA
Health hazard	: 1*	1
Flammability	: 3	3
Physical Hazard	: 0	
Instability	:	0

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\* - Chronic health hazard

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

#### **Further information**

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group