

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 15/10/2014 Revision date: 02/10/2020 Supersedes: 15/10/2014 Version: 2.0

ECN-5280

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

1.1. Product identifier

Product form : Mixtures

Product name : OCTACN (PCN-75) (13C10, 99%) 10 UG/ML IN ISOOCTANE

Product code : ECN-5280

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

1.2.1. Relevant identified uses

Main use category : Professional use

Industrial/Professional use spec : For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Cambridge Isotope Laboratories, Inc.

50 Frontage Road Andover, MA 01810

USA

USA: 1-800-322-1174 Int: 1-978-749-8000 cilsales@isotope.com www.isotope.com

Emergency telephone number

Emergency numbers:

Chemtrec: 1-800-424-9300 (24 hours) International: 1-703-741-5970 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 1 H224
Skin Irrit. 2 H315
STOT SE 3 H336
Asp. Tox. 1 H304
Aquatic Acute 1 H400
Aquatic Chronic 1 H410

Full text of hazard classes and H-statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

F+; R12 Xn; R65 Xi; R38 N; R50/53 R67

Full text of R-phrases: see section 16

GHS-US classification

Flam. Liq. 1 H224
Skin Irrit. 2 H315
STOT SE 3 H336
Asp. Tox. 1 H304
Aquatic Acute 1 H400
Aquatic Chronic 1 H410

Full text of H statements : see section 16

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Adverse physicochemical, human health and environmental effects

Liver, Kidney. Highly flammable liquid and vapor. May cause drowsiness or dizziness. Causes skin irritation. May be fatal if swallowed and enters airways. Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)









Signal word (CLP) : Danger

Hazard statements (CLP) : H224 - Extremely flammable liquid and vapour

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation

H336 - May cause drowsiness or dizziness

H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P233 - Keep container tightly closed.

P240 - Ground/bond container and receiving equipment.

P241 - Use explosion-proof electrical, lighting, ventilating equipment P261 - Avoid breathing dust, fume, gas, mist, spray, vapors.

P264 - Wash Both hands thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

GHS-US labeling

Hazard pictograms (GHS-US)









Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H224 - Extremely flammable liquid and vapour

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation

H336 - May cause drowsiness or dizziness

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) : P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking.

P233 - Keep container tightly closed.

P240 - Ground/Bond container and receiving equipment

P241 - Use explosion-proof electrical, lighting, ventilating equipment

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge. P261 - Avoid breathing dust, fume, gas, mist, spray, vapors.

P264 - Wash Both hands thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

P280 - Wear protective clothing, protective gloves.

P301+P310 - If swallowed: Immediately call a poison center or doctor

P302+P352 - If on skin: Wash with plenty of water

P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing

P312 - Call a poison center or doctor if you feel unwell

P321 - Specific treatment (see Hazard pictograms (CLP) on this label)

P331 - Do NOT induce vomiting.

P332+P313 - If skin irritation occurs: Get medical advice/attention. P362 - Take off contaminated clothing and wash before reuse.

P370+P378 - In case of fire: Use Alcohol resistant foam, Carbon dioxide, Dry chemical, Water spray to extinguish.

P391 - Collect spillage.

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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 Comply with applicable regulations

Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

Substances

Not applicable

Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
ISOOCTANE UNLABELED	(CAS-No.) 540-84-1 (EC-No.) 208-759-1 (EC Index-No.) 601-009-00-8 (REACH-no) 01-2119457965-22	99.9986	Xi; R38 N; R50/53 R67 F; R11 Xn; R65
OCTACN (13C10, 99%)	(CAS-No.) 2234-13-1 (Unlabeled) (EC-No.) 218-778-7	0.0014	Xn; R22 R53
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ISOOCTANE UNLABELED	(CAS-No.) 540-84-1 (EC-No.) 208-759-1 (EC Index-No.) 601-009-00-8 (REACH-no) 01-2119457965-22	99.9986	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
OCTACN (13C10, 99%)	(CAS-No.) 2234-13-1 (Unlabeled) (EC-No.) 218-778-7	0.0014	Acute Tox. 4 (Oral), H302 Aquatic Chronic 4, H413
Name	Product identifier	%	GHS-US classification
ISOOCTANE UNLABELED	(CAS-No.) 540-84-1	99.9986	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
OCTACN (13C10, 99%)	(CAS-No.) 2234-13-1 (Unlabeled)	0.0014	Acute Tox. 4 (Oral), H302

Full text of R- and H- phrases: see section 16

SECTION 4: First aid measures

	4.1.	Description	of first aid	measures
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: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of First-aid measures general

dangerous area.

First-aid measures after inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a

POISON CENTER or doctor/physician if you feel unwell.

Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash First-aid measures after skin contact with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation

occurs: Wash with plenty of soap and water. Get medical advice/attention. Specific treatment

Aquatic Chronic 4, H413

(see Hazard pictograms (CLP) on this label).

: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. First-aid measures after eye contact

First-aid measures after ingestion Immediately call a poison center or doctor/physician.

Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : May cause drowsiness or dizziness.

Symptoms/effects after skin contact : Causes skin irritation. Symptoms/effects after eye contact : May cause eye irritation.

Symptoms/effects after ingestion : May be fatal if swallowed and enters airways.

Indication of any immediate medical attention and special treatment needed

No additional information available

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Flood fire area with water from a distance. Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Extremely flammable liquid and vapour.

Explosion hazard : Flash back possible over important distance.

Reactivity : Vapors may form flammable mixture with air. Highly flammable liquid and vapor.

5.3. Advice for firefighters

Firefighting instructions : Wear a self contained breathing apparatus.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do

not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Other information : Use water spray to cool exposed surfaces

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures

: Ventilate spillage area. Use personal protective equipment as required. Remove all sources of ignition. Ensure adequate air ventilation. Provide adequate ventilation to minimize dust and/or vapor concentrations. No open flames, no sparks, and no smoking. Avoid breathing gas, mist, vapors. Avoid contact with skin and eyes. Evacuate danger area. Special attention should be given to low areas/pits where flammable vapors can accumulate.

6.1.2. For emergency responders

Protective equipment

: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Stop leak, if possible without risk. Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment

: Vacuum with an equipment that avoids ignition risk. This material and its container must be disposed of in a safe way, and as per local legislation. Collect spillage.

Methods for cleaning up

: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters. This material and its container must be disposed of in a safe way, and as per local legislation.

Other information

: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed

: Avoid all contact with skin, eyes, or clothing.

Precautions for safe handling

: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing vapors, mist. Avoid contact with skin and eyes.

Hygiene measures

: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures

: Keep dry. Store in tightly closed, leak-proof containers. Containers which are opened should be properly resealed and kept upright to prevent leakage. Ground/bond container and receiving equipment.

Storage conditions

: Store at room temperature away from light and moisture.

7.3. Specific end use(s)

No additional information available

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SECTION 8: Exposure controls/personal protection

Control parameters

OCTACN (PCN-75) (13C10, 99%) 10 UG/ML IN ISOOCTANE				
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	300.00000000 ppm Basis: USA. ACGIH Threshold Limit Values (TLV)		
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Upper Respiratory Tract irritation		
ISOOCTANE UNLABELED (5	40-84-1)			
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	300.00000000 ppm Basis: USA. ACGIH Threshold Limit Values (TLV)		
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Upper Respiratory Tract irritation		

Exposure controls

Appropriate engineering controls : Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work. Ensure good ventilation of the work station.

Personal protective equipment Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.







Materials for protective clothing Wear suitable protective clothing and gloves.

Hand protection : Wear suitable protective clothing and gloves.

Eye protection Wear eye protection. Chemical goggles or face shield with safety glasses. Safety glasses.

Skin and body protection Wear suitable protective clothing, gloves and eye/face protection.

Respiratory protection In case of inadequate ventilation wear respiratory protection. Approved supplied air respirator.

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

The properties listed below are for the solvent, the main component of this mixture. : Liquid Physical state : Liquid **Appearance** Molecular mass : 114.23 g/mol Color : Colorless Odor : No data available

Odor threshold No data available рΗ : No data available Relative evaporation rate (butyl acetate=1) : No data available : -107 °C (-161 °F) Melting point Freezing point : No data available

: 98 - 99 °C (208 - 210 °F) at 1,013 hPa (760 mmHg) **Boiling point**

Flash point : -12 °C (10 °F) - closed cup

Auto-ignition temperature : No data available Decomposition temperature : No data available Flammability (solid, gas) : Not applicable

: 55 hPa (41 mmHg) at 21 °C (70 °F); Vapor pressure

117 hPa (88 mmHg) at 37.8 °C (100.04 °F)

Relative vapor density at 20 °C : 3.94 - (Air = 1.0) Relative density : No data available

0.69 g/ml at 20 °C (68 °F) Specific gravity / density

Solubility : Water: insoluble

Log Pow : 4.6

Log Kow : No data available Viscosity, kinematic No data available Viscosity, dynamic No data available Explosive properties : No data available Oxidizing properties : No data available **Explosion limits** : 1-6%(V)

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9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Vapors may form flammable mixture with air. Highly flammable liquid and vapor.

10.2. Chemical stability

See storage and expiration date on CoA.

10.3. Possibility of hazardous reactions

Vapors may form explosive mixture with air.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

OCTACN (PCN-75) (13C10, 99%) 10 UG/ML IN ISOOCTANE		
LD50 oral rat	> 5000 mg/kg (OECD Test Guideline 401)	
LD50 dermal rabbit	> 2000 mg/kg (OECD Test Guideline 402)	
LC50 inhalation rat (mg/l)	> 33.52 mg/l/4h (OECD Test Guideline 403)	

OCTACN (13C10, 99%) (2234-13-1 (Unlabeled))

ATE CLP (oral) 500.000 mg/kg body weight

ISOOCTANE UNLABELED (540-84-1)		
LD50 oral rat	> 5000 mg/kg (OECD Test Guideline 401)	
LD50 dermal rabbit	> 2000 mg/kg (OECD Test Guideline 402)	
LC50 inhalation rat (mg/l)	> 33.52 mg/l/4h (OECD Test Guideline 403)	

Skin corrosion/irritation : Skin - Rabbit - Result: Irritating to skin. (OECD 404 method)
Serious eye damage/irritation : Eyes - Rabbit - Result: No eye irritation. (OECD 405 method)

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Rat - Unscheduled DNA synthesis

Carcinogenicity : Not classified Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : May cause drowsiness or dizziness

Specific target organ toxicity – repeated : Health hazard - Aspiration hazard

Specific target organ toxicity – repeated

exposure

: Aspiration hazard

Aspiration hazard : Aspiration haz

Potential Adverse human health effects and

symptoms

: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. Affects the liver.

Symptoms/effects after inhalation : May cause drowsiness or dizziness.

Symptoms/effects after skin contact : Causes skin irritation.

Symptoms/effects after eye contact : May cause eye irritation.

Symptoms/effects after ingestion : May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.

OCTACN (13C10, 99%) (2234-13-1 (Unlabeled))		
LC50 fish 1	> 600 mg/l Lepomis macrochirus (Bluegill) - 96 h	
EC50 Daphnia 1	> 530 mg/l Daphnia magna (Water flea) - 48 h	
ErC50 (algae)	> 500 mg/l Pseudokirchneriella subcapitata (green algae) - 72 h	

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OCTACN (13C10, 99%) (2234-13-1 (Unlabele	d))
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NOEC (chronic) 560 mg/l Cyprinodon variegatus (sheepshead minnow) - 96 h

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

OCTACN (PCN-75) (13C10, 99%)	10 UG/ML IN	ISOOCTANE

Log Pow 4.6

OCTACN (13C10, 99%) (2234-13-1 (Unlabeled))

Log Pow 6.42

ISOOCTANE UNLABELED (540-84-1)

Log Pow 4.6

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other adverse effects : An environmental hazard cannot be excluded in the event of unprofessional handling or

disposal.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and local

environmental control regulations.

Product/Packaging disposal recommendations : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed

professional waste disposal service to dispose of this material.

Ecology - waste materials : Dispose of as unused product.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No.(DOT) : 1262 DOT NA no. UN1262

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Octanes

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT) : 3 - Flammable liquid



Packing group (DOT) : II - Medium Danger

DOT Special Provisions (49 CFR 172.102) : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite

(31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110

kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.

T4 - 2.65 178.274(d)(2) Normal............................... 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242

14.3. Additional information

Emergency Response Guide (ERG) Number : 128

Other information : No supplementary information available.

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Overland transport

Packing group (ADR) : II

Class (ADR) : 3 - Flammable liquid

Hazard identification number (Kemler No.) : 33 Classification code (ADR) : F1

Hazard labels (ADR) : 3 - Flammable liquids

3

Orange plates :

33 1262

Tunnel restriction code (ADR) : D/E
Limited quantities (ADR) 11
EAC : 3YE
Excepted quantities (ADR) : E2

Transport by sea

DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this

section is exceeded.

MFAG-No : 128

Air transport

DOT Quantity Limitations Passenger aircraft/rail : 5 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 60 L

CFR 175.75)

Civil Aeronautics Law : Flammable liquids

14.4. Environmental hazards

Dangerous for the environment



Other information : No supplementary information available.

14.5. Special precautions for user

14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

OCTACN (PCN-75) (13C10, 99%) 10 UG/ML IN ISOOCTANE		
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporing requirements of the United States SARA Section 302.	
SARA Section 311/312 Hazard Classes	Fire hazard Delayed (chronic) health hazard	
SARA Section 313 - Emission Reporting	Not subject to reporing requirements of the United States SARA Section 313.	
OCTACN (13C10, 99%) (2234-13-1 (Unlabele	ed))	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard	

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Delayed (chronic) health hazard

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OCTACN (13C10, 99%) (2234-13-1 (Unlabele	ed))
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
ISOOCTANE UNLABELED (540-84-1)	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporing requirements of the United States SARA Section 302.
SARA Section 311/312 Hazard Classes	Fire hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporing requirements of the United States SARA Section 313.

15.2. International regulations

CANADA

OCTACN (PCN-75) (13C10, 99%) 10 UG/ML IN ISOOCTANE

Listed on the Canadian DSL (Domestic Substances List)

15.2.1. National regulations

No additional information available

15.3. US State regulations

OCTACN (PCN-75) (13C10, 99%) 10 UG/ML IN ISOO	CTANE()
U.S California - Proposition 65 - Carcinogens List	No
U.S California - Proposition 65 - Developmental Toxicity	No
U.S California - Proposition 65 - Reproductive Toxicity - Female	No
U.S California - Proposition 65 - Reproductive Toxicity - Male	No
State or local regulations	U.S Massachusetts - Right To Know List U.S Pennsylvania - RTK (Right to Know) List U.S New Jersey - Right to Know Hazardous Substance List

OCTACN (13C10, 99%) (2234-13-1 (Unlabeled)) U.S. - California Proposition 65 Carcinogens List U.S. - California Proposition 65 Developmental Toxicity U.S. - California Proposition 65 Reproductive Toxicity Reproductive Toxicity Male

Carcinogens List Developmental Toxicity Reproductive Toxicity - Reproductive Toxicity - Male

No No No No No

ISOOCTANE UNLABELED	(540-84-1)			
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

OCTACN (13C10, 99%) (2234-13-1 (Unlabeled))

State or local regulations

- U.S. Massachusetts Right To Know List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. New Jersey Right to Know Hazardous Substance List

ISOOCTANE UNLABELED (540-84-1)

State or local regulations

- U.S. Massachusetts Right To Know List
- U.S. Pennsylvania RTK (Right to Know) List
- U.S. New Jersey Right to Know Hazardous Substance List

SECTION 16: Other information

Other information

: This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

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Full text of R-, H- and EUH-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 4	Hazardous to the aquatic environment - Chronic Hazard Category 4
Asp. Tox. 1	Aspiration hazard Category 1
Flam. Liq. 1	Flammable liquids Category 1
Flam. Liq. 2	Flammable liquids Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H224	Extremely flammable liquid and vapour
H225	Highly flammable liquid and vapor
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H336	May cause drowsiness or dizziness
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life
R11	Highly flammable
R12	Extremely flammable
R22	Harmful if swallowed
R38	Irritating to skin
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R53	May cause long-term adverse effects in the aquatic environment
R65	Harmful: may cause lung damage if swallowed
R67	Vapors may cause drowsiness and dizziness
F	Highly flammable
F+	Extremely flammable
N	Dangerous for the environment
Xi	Irritant
Xn	Harmful

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause

temporary incapacitation or residual injury.

: 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient

temperature conditions.

NFPA reactivity : 0 - Material that in themselves are normally stable, even

under fire conditions.



Hazard Rating

NFPA fire hazard

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 3 Serious Hazard
Physical : 0 Minimal Hazard

CIL Mixture SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

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