

## 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

Version: 3.0

Date of issue: 24/01/2011 Revision date: 04/01/2017 Supersedes: 09/01/2015

DLM-3484

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

1.1. Product identifier

Product form : Substance

Substance name : MORPHOLINE-2,2,3,3,5,5,6,6-D8 (D, 98%)

EC Index No : 613-028-00-9 (Unlabeled)
EC No : 203-815-1 (Unlabeled)
CAS No : 110-91-8 (Unlabeled)

Product code : DLM-3484
Formula : C4D8ONH

Synonyms : Tetrahydro-1,4-oxazine

#### 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 <u>cilsales@isotope.com</u> 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. 3
 H226

 Acute Tox. 4 (Oral)
 H302

 Acute Tox. 3 (Dermal)
 H311

 Acute Tox. 3 (Inhalation)
 H331

 Skin Corr. 1B
 H314

 Eye Dam. 1
 H318

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

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

R10 Xn; R22 C; R34 T; R24 Xi; R41

Full text of R-phrases: see section 16

#### **GHS-US** classification

Flam. Liq. 3 H226
Acute Tox. 4 (Oral) H302
Acute Tox. 3 (Dermal) H311
Acute Tox. 3 (Inhalation) H331
Skin Corr. 1B H314
Eye Dam. 1 H318

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Aquatic Acute 3 H402

Full text of H statements : see section 16

#### Adverse physicochemical, human health and environmental effects

Liver, Kidney.

#### 2.2. Label elements

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

Hazard pictograms (CLP)







GHS02

Signal word (CLP) : Danger

Hazard statements (CLP) : H226 - Flammable liquid and vapour

H302 - Harmful if swallowed

H311+H331 - Toxic in contact with skin or if inhaled H314 - Causes severe skin burns and eye damage

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

P260 - Do not breathe fume, mist, spray, vapours
P264 - Wash both hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area

### **GHS-US** labelling

Hazard pictograms (GHS-US)







GHS02

GHS06

GHS05

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H226 - Flammable liquid and vapour

H302 - Harmful if swallowed

H311+H331 - Toxic in contact with skin or if inhaled H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage H402 - Harmful to aquatic life

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

P260 - Do not breathe fume, mist, spray, vapours

P261 - Avoid breathing dust, fume, gas, vapours, spray, mist P264 - Wash Both hands thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P270 - Do not eat, drink of shoke when using this product P271 - Use only outdoors or in a well-ventilated area

P273 - Avoid release to the environment

P280 - Wear eye protection, face protection, protective clothing, protective gloves

P301+P312 - If swallowed: Call a doctor if you feel unwell

P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting

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

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a doctor

P311 - Call a doctor

P312 - Call a doctor if you feel unwell

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

P330 - Rinse mouth

P361 - Take off immediately all contaminated clothing

P363 - Wash contaminated clothing before reuse

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

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**

Name	Product identifier	%	Classification according to Directive 67/548/EEC
MORPHOLINE-2,2,3,3,5,5,6,6-D8 (D, 98%)	(CAS No) 110-91-8 (Unlabeled) (EC No) 203-815-1 (Unlabeled) (EC Index No) 613-028-00-9 (Unlabeled)	100	R10 Xn; R22 C; R34 T; R24 Xi; R41
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
MORPHOLINE-2,2,3,3,5,5,6,6-D8 (D, 98%)	(CAS No) 110-91-8 (Unlabeled) (EC No) 203-815-1 (Unlabeled) (EC Index No) 613-028-00-9 (Unlabeled)	100	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Skin Corr. 1B, H314 Eve Dam. 1, H318

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

Name	Product identifier	%	GHS-US classification
MORPHOLINE-2,2,3,3,5,5,6,6-D8 (D, 98%) (Main constituent)	(CAS No) 110-91-8 (Unlabeled)	100	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 3, H402

Full text of H-statements: see section 16

### **Mixtures**

Not applicable

#### **SECTION 4: First aid measures**

### **Description of first aid measures**

First-aid measures general : If you feel unwell, seek medical advice (show the label where possible).

Move the affected person away from the contaminated area and into the fresh air. If not First-aid measures after inhalation

breathing, give artificial respiration. Get immediate medical advice/attention.

First-aid measures after skin contact : Wash with plenty of soap and water. Get immediate medical advice/attention.

First-aid measures after eye contact In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

First-aid measures after ingestion Get medical advice/attention if you feel unwell. Rinse mouth. Do not induce vomiting.

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

Symptoms/injuries after inhalation : Toxic if inhaled.

Symptoms/injuries after skin contact Toxic in contact with skin. Causes severe burns.

Symptoms/injuries after eye contact : Causes serious eye damage. Symptoms/injuries after ingestion : Harmful if swallowed.

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

No additional information available

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### **SECTION 5: Fire-fighting measures**

#### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).

#### 5.2. Special hazards arising from the substance or mixture

No additional information available

#### 5.3. Advice for firefighters

Firefighting instructions : Do not enter fire area without proper protective equipment, including respiratory protection.

Protection during firefighting : Wear self-contained breathing apparatus, rubber boots and thick rubber gloves.

#### **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures

: Use personal protective equipment as required. Avoid dust formation. Avoid breathing vapours, mist, gas. Ensure adequate air ventilation.

#### 6.1.2. For emergency responders

No additional information available

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

For containment

: Collect spillage. Clean up any spills as soon as possible, using an absorbent material to collect it. This material and its container must be disposed of in a safe way, and as per local legislation.

#### 6.4. Reference to other sections

No additional information available

### **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Additional hazards when processed

: Provide for appropriate exhaust ventilation at places of vapours accumulation. Avoid all eye and skin contact and do not breathe vapour and mist.

Hygiene measures

: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Store in a well-ventilated place. Keep container tightly closed. Storage conditions : Store at room temperature away from light and moisture.

#### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

MORPHOLINE-2,2,3,3,5,5,6,6-D8 (D, 98%) (110-91-8 (Unlabeled))		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	20.00000000 ppm Upper Respiratory Tract irritation.Eye damage.Danger of subcutaneous absorption.Not classifiable as a human carcinogen.
USA NIOSH	NIOSH REL (TWA) (mg/m³)	70 mg/m³ Potential for dermal absorption
USA NIOSH	NIOSH REL (TWA) (ppm)	20 ppm Potential for dermal absorption
USA NIOSH	NIOSH REL (STEL) (mg/m³)	105 mg/m³ Potential for dermal absorption
USA NIOSH	NIOSH REL (STEL) (ppm)	30 ppm Potential for dermal absorption
USA OSHA	OSHA PEL (TWA) (mg/m³)	70 mg/m³ Skin designation. The value mg/m³ is an approximate.
USA OSHA	OSHA PEL (TWA) (ppm)	20 ppm Skin designation
USA OSHA	OSHA PEL (STEL) (mg/m³)	105 mg/m³ Skin - California permissible exposure limits for chemical contaminants (Title 8, Article 107)
USA OSHA	OSHA PEL (STEL) (ppm)	30 ppm Skin - California permissible exposure limits for chemical contaminants (Title 8, Article 107)
USA OSHA	OSHA PEL (Ceiling) (mg/m³)	70 mg/m³ Skin - California permissible exposure limits for chemical contaminants (Title 8, Article 107)

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#### MORPHOLINE-2,2,3,3,5,5,6,6-D8 (D, 98%) (110-91-8 (Unlabeled)) USA OSHA OSHA PEL (Ceiling) (ppm) 20 ppm Skin - California permissible exposure limits for chemical contaminants (Title 8, Article 107)

#### 8.2. **Exposure controls**

Personal protective equipment : Safety glasses. Gloves. Respiratory protection of the dependent type. Protective clothing.



Materials for protective clothing Wear suitable protective clothing and gloves. Hand protection Wear suitable protective clothing and gloves.

Eye protection : Wear closed safety glasses. Skin and body protection : Wear suitable protective clothing. Respiratory protection : Wear respiratory protection.

#### **SECTION 9: Physical and chemical properties**

#### Information on basic physical and chemical properties

: Liquid Physical state Appearance : Liquid.

Molecular mass : 95.17 g/mol (Labeled)

Colour : Colourless. Odour : unpleasant odour. Odour threshold : No data available

10.6 at 5 g/l at 20 °C (68 °F) pΗ

Relative evaporation rate (butylacetate=1) : No data available

Melting point : -7 - -5 °C (19 - 23 °F) - lit. Freezing point : No data available : 129 °C (264 °F) - lit. Boiling point Flash point : 31 °C (88 °F) - closed cup

: 255 °C (491 °F) at 1,013 hPa (760 mmHg) Auto-ignition temperature

Decomposition temperature : No data available Flammability (solid, gas) : No data available

Vapour pressure : 41 hPa (31 mmHg) at 38 °c (100 °F) 9 hPa (7 mmHg) at 20 °c (68 °F)

Relative vapour density at 20 °C : 3.01 Air = 1 Relative density No data available

: 0.996 g/mL at 25 °C (77 °F) Density Solubility : Water: Completely miscible Log Pow : - 2.55 at 25 °C (77 °F) Log Kow No data available Viscosity, kinematic No data available Viscosity, dynamic : No data available Explosive properties : No data available Oxidising properties : No data available : 1.8 - 10.8 % (V) **Explosive limits** 

#### Other information

No additional information available

## **SECTION 10: Stability and reactivity**

#### Reactivity

No additional information available

## **Chemical stability**

Stable if stored under recommended conditions.

## Possibility of hazardous reactions

Vapours may form explosive mixture with air.

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#### 10.4. Conditions to avoid

Heat. Open flame. Sparks.

#### 10.5. Incompatible materials

Strong oxidizing agents.

#### 10.6. Hazardous decomposition products

Nitrogen oxides. Carbon oxides (CO, CO2).

#### **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed. Dermal: Toxic in contact with skin. Inhalation: Toxic if inhaled.

MORPHOLINE-2,2,3,3,5,5,6,6-D8 (D, 98%) (110-91-8 (Unlabeled))	
LD50 oral rat	1900 mg/kg male and female (OECD Test Guideline 401)
LD50 dermal rabbit	500 mg/kg Rabbit - male (OECD Test Guideline 402)
ATE CLP (oral)	1900.000 mg/kg bodyweight
ATE CLP (dermal)	500.000 mg/kg bodyweight
ATE CLP (gases)	700.000 ppmv/4h
ATE CLP (vapours)	3.000 mg/l/4h
ATE CLP (dust,mist)	0.500 mg/l/4h

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Skin - rabbit - Causes severe burns. - Draize Test

(OECD Test Guideline 404) pH: 10.6 at 5 g/l at 20 °C (68 °F)

Serious eye damage/irritation : Eyes - Rabbit Result: Corrosive to eyes. (OECD Test Guideline 405)

pH: 10.6 at 5 g/l at 20 °C (68 °F)

Respiratory or skin sensitisation : Buehler Test - guinea pig - Did not cause sensitization on laboratory animals.

Germ cell mutagenicity : Rat - Unscheduled DNA synthesis. Result: Negative. . Hamster - fibroblast Result: Negative Carcinogenicity - mouse - Oral. Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.

Lungs, Thorax, or Respiration: Bronchiogenic carcinoma. Liver: Tumors.

Reproductive toxicity : Not available STOT-single exposure : Not classified STOT-repeated exposure : Not classified

## MORPHOLINE-2,2,3,3,5,5,6,6-D8 (D, 98%) (110-91-8 (Unlabeled))

LOAEL50, female, oral, rat	mg/Kg
Aspiration hazard	Not classified

Potential adverse human health effects and

symptoms

: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Cough, Shortness of breath, Headache, Nausea. Stomach - Irregularities

 - Based on Human Evidence. 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.

IARC group : 3

Symptoms/injuries after inhalation : Toxic if inhaled.

Symptoms/injuries after skin contact : Toxic in contact with skin. Causes severe burns.

Symptoms/injuries after eye contact : Causes serious eye damage. Symptoms/injuries after ingestion : Harmful if swallowed.

## SECTION 12: Ecological information

## 12.1. Toxicity

MORPHOLINE-2,2,3,3,5,5,6,6-D8 (D, 98%) (110-91-8 (Unlabeled))	
LC50 fish 1	380 mg/l static test LC50 - Oncorhynchus mykiss (rainbow trout) - 96 h
EC50 Daphnia 1	45 mg/l Immobilization EC50 - Daphnia magna (Water flea)I - 48 h (OECD Test Guideline 202)
ErC50 (algae)	28 mg/l static test EC50 - Pseudokirchneriella subcapitata - 96 h

## 12.2. Persistence and degradability

MORPHOLINE-2,2,3,3,5,5,6,6-D8 (D, 98%) (110-91-8 (Unlabeled))	
Persistence and degradability	Biodegradability.
Biodegradation	aerobic - Exposure time 25 d Result: 93 % - Readily biodegradable

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#### 12.3. Bioaccumulative potential

MORPHOLINE-2,2,3,3,5,5,6,6-D8 (D, 98%) (110-91-8 (Unlabeled))	
BCF fish 1	Cyprinus carpio (Carp) - 0.5 mg/l
Bioconcentration factor (BCF REACH)	< 2.8 (OECD Test Guideline 305C)
Log Pow	- 2.55 at 25 °C (77 °F)

#### 12.4. Mobility in soil

MORPHOLINE-2,2,3,3,5,5,6,6-D8 (D, 98%) (110	-91-8 (Unlabeled))
Ecology - soil	Not available.

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

Other adverse effects : Environmental precautions. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### **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) : 2054 DOT NA no. UN2054

#### 14.2. UN proper shipping name

Proper Shipping Name (DOT) : Morpholine

Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

Hazard labels (DOT) : 8 - Corrosive

3 - Flammable liquid





Packing group (DOT) : I - Great Danger

DOT Special Provisions (49 CFR 172.102) : A6 - For combination packagings, if plastic inner packagings are used, they must be packed in

tightly closed metal receptacles before packing in outer packagings.

T10 - 4 6 mm Prohibited 178.275(g)(3).

TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C

(59 F) and 50 C (122 F), respectively.

DOT Packaging Exceptions (49 CFR 173.xxx) : None
DOT Packaging Non Bulk (49 CFR 173.xxx) : 201
DOT Packaging Bulk (49 CFR 173.xxx) : 243
Marine pollutant : No

### 14.3. Additional information

Other information : No supplementary information available.

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#### **Overland transport**

Packing group (ADR) : 1

Class (ADR) : 8 - Corrosive substances

Hazard identification number (Kemler No.) : 883 Classification code (ADR) : CF1

Danger labels (ADR) : 8 - Corrosive substances

3 - Flammable liquids



Orange plates

Tunnel restriction code (ADR) : D/E Limited quantities (ADR) 0 EAC code : •2W APP code : A(fl) Excepted quantities (ADR) : E0

Transport by sea

**DOT Vessel Stowage Location** : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel.

MFAG-No : 132

Air transport

DOT Quantity Limitations Passenger aircraft/rail : 0.5 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 2.5 L

CFR 175.75)

Civil Aeronautics Law : Corrosive substances(Hazardous materials notice Appended Table 1 Article 194 of the

Enforcement Regulations)

**Environmental hazards** 

Other information : No supplementary information available.

14.5. Special precautions for user

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

Not applicable

## **SECTION 15: Regulatory information**

## 15.1. US Federal regulations

MORPHOLINE-2,2,3,3,5,5,6,6-D8 (D, 98%) (110-91-8 (Unlabeled))	
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	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313

### 15.2. International regulations

#### **CANADA**

MORPHOLINE-2,2,3,3,5,5,6,6-E	08 (D, 98%) (110-91-8	(Unlabeled))
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Listed on the Canadian DSL (Domestic Substances List)

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#### **National regulations**

No additional information available

#### 15.3. US State regulations

MORPHOLINE-2,2,3,3,5,5,6,6-D8 (D, 98%)(110-91-8 (Unlabeled))	
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

## **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.

#### Full text of R-, H- and EUH-statements:

Acute Tox. 3 (Inhalation) Acute toxicity (inhal.), Category 3 Acute Tox. 4 (Oral) Acute toxicity (oral), Category 4 Eye Dam. 1 Serious eye damage/eye irritation, Category 1 Flam. Liq. 3 Flammable liquids, Category 3 Skin Corr. 1B Skin corrosion/irritation, Category 1B H226 Flammable liquid and vapour H302 Harmful if swallowed H311 Toxic in contact with skin Causes severe skin burns and eye damage H318 Causes serious eye damage H331 Toxic if inhaled R10 Flammable R22 Harmful if swallowed R24 Toxic in contact with skin R34 Causes burns R41 Risk of serious damage to eyes C Corrosive T Toxic Xi Irritant Xn Harmful	Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Eye Dam. 1  Flam. Liq. 3  Flammable liquids, Category 3  Skin Corr. 1B  H226  Flammable liquid and vapour  H302  Harmful if swallowed  H311  Toxic in contact with skin  Causes serious eye damage  H318  Causes serious eye damage  H331  Toxic if inhaled  R10  Flammable  R22  Harmful if swallowed  R24  Toxic in contact with skin  Causes serious eye damage  R34  Causes serious eye damage  Causes burns  R41  Risk of serious damage to eyes  C  Corrosive  T  Toxic  Xi	Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Flam. Liq. 3  Skin Corr. 1B  Skin corrosion/irritation, Category 1B  H226  Flammable liquid and vapour  H302  Harmful if swallowed  H311  Toxic in contact with skin  Causes severe skin burns and eye damage  H318  Causes serious eye damage  H331  Toxic if inhaled  R10  Flammable  R22  Harmful if swallowed  R24  Toxic in contact with skin  Causes serious eye damage  Causes berns  R34  Causes burns  R41  Risk of serious damage to eyes  C  Corrosive  T  Toxic  Xi	Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Skin Corr. 1B  Skin corrosion/irritation, Category 1B  H226  Flammable liquid and vapour  H302  Harmful if swallowed  H311  Toxic in contact with skin  Causes severe skin burns and eye damage  H318  Causes serious eye damage  H331  Toxic if inhaled  R10  Flammable  R22  Harmful if swallowed  R24  Toxic in contact with skin  R34  Causes burns  R41  Risk of serious damage to eyes  C  Corrosive  T  Toxic  Xi  Irritant	Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H226 Flammable liquid and vapour H302 Harmful if swallowed H311 Toxic in contact with skin H314 Causes severe skin burns and eye damage H318 Causes serious eye damage H331 Toxic if inhaled R10 Flammable R22 Harmful if swallowed R24 Toxic in contact with skin R34 Causes burns R41 Risk of serious damage to eyes C Corrosive T Toxic Xi Irritant	Flam. Liq. 3	Flammable liquids, Category 3
H302 Harmful if swallowed H311 Toxic in contact with skin H314 Causes severe skin burns and eye damage H318 Causes serious eye damage H331 Toxic if inhaled R10 Flammable R22 Harmful if swallowed R24 Toxic in contact with skin R34 Causes burns R41 Risk of serious damage to eyes C Corrosive T Toxic Xi Irritant	Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H311 Toxic in contact with skin H314 Causes severe skin burns and eye damage H318 Causes serious eye damage H331 Toxic if inhaled R10 Flammable R22 Harmful if swallowed R24 Toxic in contact with skin R34 Causes burns R41 Risk of serious damage to eyes C Corrosive T Toxic Xi Irritant	H226	Flammable liquid and vapour
H314 Causes severe skin burns and eye damage H318 Causes serious eye damage H331 Toxic if inhaled R10 Flammable R22 Harmful if swallowed R24 Toxic in contact with skin R34 Causes burns R41 Risk of serious damage to eyes C Corrosive T Toxic Xi Irritant	H302	Harmful if swallowed
H318 Causes serious eye damage H331 Toxic if inhaled R10 Flammable R22 Harmful if swallowed R24 Toxic in contact with skin R34 Causes burns R41 Risk of serious damage to eyes C Corrosive T Toxic Xi Irritant	H311	Toxic in contact with skin
H331 Toxic if inhaled R10 Flammable R22 Harmful if swallowed R24 Toxic in contact with skin R34 Causes burns R41 Risk of serious damage to eyes C Corrosive T Toxic Xi Irritant	H314	Causes severe skin burns and eye damage
R10 Flammable R22 Harmful if swallowed R24 Toxic in contact with skin R34 Causes burns R41 Risk of serious damage to eyes C Corrosive T Toxic Xi Irritant	H318	Causes serious eye damage
R22 Harmful if swallowed R24 Toxic in contact with skin R34 Causes burns R41 Risk of serious damage to eyes C Corrosive T Toxic Xi Irritant	H331	Toxic if inhaled
R24 Toxic in contact with skin R34 Causes burns R41 Risk of serious damage to eyes C Corrosive T Toxic Xi Irritant	R10	Flammable
R34 Causes burns R41 Risk of serious damage to eyes C Corrosive T Toxic Xi Irritant	R22	Harmful if swallowed
R41 Risk of serious damage to eyes C Corrosive T Toxic Xi Irritant	R24	Toxic in contact with skin
C Corrosive T Toxic Xi Irritant	R34	Causes burns
T Toxic Xi Irritant	R41	Risk of serious damage to eyes
Xi Irritant	С	Corrosive
111100111	Т	Toxic
Xn Harmful	Xi	Irritant
	Xn	Harmful

NFPA health hazard

: 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

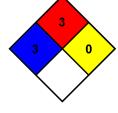
NFPA fire hazard

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.



#### **HMIS III Rating**

Health

: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 3 Serious Hazard Physical : 0 Minimal Hazard

CIL Multi-Solvent Mixture SDS

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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

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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