CARBOFURAN UNLABELED 100 UG/ML IN 1,4-DIOXANE

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: 13/06/2018 Revision date: : Version: 1.0

ULM-7419-S

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

1.1. Product identifier

Product form : Mixtures

Product name : CARBOFURAN UNLABELED 100 UG/ML IN 1,4-DIOXANE

Product code : ULM-7419-S

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. 2 H225

Eye Irrit. 2 H319

Carc. 2 H351

STOT SE 3 H335

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; R11
Xi; R36/37
Carc.Cat.3; R40

Full text of R-phrases: see section 16

GHS-US classification

Flam. Liq. 2 H225
Eye Irrit. 2A H319
Carc. 2 H351
STOT SE 3 H335

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Liver, Kidney, Central nervous system.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS02 GHS08 GHS07

Signal word (CLP) : Danger

Hazardous ingredients : 1,4-DIOXANE (P-DIOXANE) UNLABELED

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer (in contact with skin, if inhaled, if swallowed)

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.
P280 - Wear protective clothing, protective gloves.

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS02 GHS08 GHS07

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H225 - Highly flammable liquid and vapour
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer (Dermal, Inhalation, oral)

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, 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, mist, gas, spray, vapors.
P264 - Wash Both hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective clothing, protective gloves.
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
P308+P313 - If exposed or concerned: Get medical advice/attention.
P312 - Call a doctor if you feel unwell
P337+P313 - If eye irritation persists: Get medical advice/attention.
P370+P378 - In case of fire: Use Dry chemical, Alcohol resistant foam, Carbon dioxide. 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 Dispose in a safe manner in accordance with local/national regulations

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
1,4-DIOXANE (P-DIOXANE) UNLABELED	(CAS-No.) 123-91-1 (EC-No.) 204-661-8 (EC Index-No.) 603-024-00-5 (REACH-no) 01-2119462837-26	99.9903	F; R11 Xi; R36/37 Carc.Cat.3; R40
CARBOFURAN UNLABELED	(CAS-No.) 1563-66-2 (Unlabeled) (EC-No.) 216-353-0 (EC Index-No.) 006-026-00-9	0.0097	T+; R26/28 N; R50/53 T; R24

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
1,4-DIOXANE (P-DIOXANE) UNLABELED	(CAS-No.) 123-91-1 (EC-No.) 204-661-8 (EC Index-No.) 603-024-00-5 (REACH-no) 01-2119462837-26	99.9903	Flam. Liq. 2, H225 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335
CARBOFURAN UNLABELED	(CAS-No.) 1563-66-2 (Unlabeled) (EC-No.) 216-353-0 (EC Index-No.) 006-026-00-9	0.0097	Acute Tox. 1 (Oral), H300 Acute Tox. 3 (Dermal), H311 Acute Tox. 1 (Inhalation), H330 Acute Tox. 2 (Inhalation:dust,mist), H330 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410

Name	Product identifier	%	GHS-US classification
1,4-DIOXANE (P-DIOXANE) UNLABELED	(CAS-No.) 123-91-1	99.9903	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 3, H335
CARBOFURAN UNLABELED	(CAS-No.) 1563-66-2 (Unlabeled)	0.0097	Acute Tox. 1 (Oral), H300 Acute Tox. 3 (Dermal), H311 Acute Tox. 2 (Inhalation), H330 Acute Tox. 2 (Inhalation:dust,mist), H330 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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

SECTION 4: First aid measures

4.1. Description of first aid measures

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

First-aid measures after inhalation : If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

First-aid measures after skin contact : Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

First-aid measures after eye contact : Flush eye with water for 15 minutes. Get medical attention.

First-aid measures after ingestion : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : May be harmful if inhaled. Causes respiratory tract irritation.

Symptoms/effects after skin contact : May be harmful if absorbed through the skin. Causes skin irritation.

Symptoms/effects after eye contact : Causes eye irritation.

Symptoms/effects after ingestion : May be harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : For small fires, use media such as "alcohol" foam, dry chemicalm or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Reactivity : Vapors may form explosive mixture with air.

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.

Other information : Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Flammable in presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

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

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

For containment : Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation.

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 contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent build up of electrostatic charge.

Precautions for safe handling : Provide adequate ventilation to minimize dust and/or vapor concentrations.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep container tightly closed in a cool, dry and well-ventilated place.

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

CARBOFURAN UNLABELED 100 UG/ML IN 1,4-DIOXANE		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	20.00000000 ppm Liver damage. Confirmed animal carcinogen with unknown relevance to humans. Danger of cutaneous absorption.
USA NIOSH	NIOSH REL (ceiling) (mg/m³)	3.6 mg/m³ Potential Occupational Carcinogen. 30 minute ceiling value.
USA NIOSH	NIOSH REL (ceiling) (ppm)	1 ppm Potential Occupational Carcinogen. 30 minute ceiling value.
USA OSHA	OSHA PEL (TWA) (mg/m³)	90 mg/m³ Skin notation.
USA OSHA	OSHA PEL (TWA) (ppm)	25 ppm Skin notation.
USA OSHA	Remark (OSHA)	TWA 100 ppm; 360 mg/m3 Skin Designation. The value in mg/m3 is approximate.

1,4-DIOXANE (P-DIOXANE) UNLABELED (123-91-1)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	20.00000000 ppm Liver damage. Confirmed animal carcinogen with unknown relevance to humans. Danger of cutaneous absorption.
USA NIOSH	NIOSH REL (ceiling) (mg/m³)	3.6 mg/m³ Potential Occupational Carcinogen. 30 minute ceiling value.

1,4-DIOXANE (P-DIOXANE) UNLABELED (123-91-1)		
USA NIOSH	NIOSH REL (ceiling) (ppm)	1 ppm Potential Occupational Carcinogen. 30 minute ceiling value.
USA OSHA	OSHA PEL (TWA) (mg/m³)	90 mg/m³ Skin notation.
USA OSHA	OSHA PEL (TWA) (ppm)	25 ppm Skin notation.
USA OSHA	Remark (OSHA)	TWA 100 ppm; 360 mg/m3 Skin Designation. The value in mg/m3 is approximate.

CARBOFURAN UNLABELED (1563-66-2 (Unlabeled))		
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m³)	0.1 mg/m³
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Cholinesterase inhibition. Substances for which there is a Biological Exposure Index or Indices (See BEI section), see BEI for Acetylcholinesterase Inhibiting Pesticide. Not classifiable as a human carcinogen
USA NIOSH	NIOSH REL (TWA) (mg/m³)	0.1 mg/m³ USA. NIOSH Recommended Exposure Limits
USA OSHA	OSHA PEL (STEL) (mg/m³)	0.1 mg/m³ California permissible exposure limits for chemical contaminants (Title 8, Article 107)

CARBOFURAN UNLABELED 100 UG/ML IN 1,4-DIOXANE	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	144 mg/m³
Long-term - systemic effects, inhalation	73 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	10 mg/l
PNEC aqua (intermittent, freshwater)	10 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	37 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.153 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	2700 mg/l

DNEL : 21 mg/m³ Skin contact - Long-term systemic effects

8.2. 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.

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

Materials for protective clothing : Wear suitable protective clothing and gloves.

Hand protection : Wear suitable protective clothing and gloves.

Eye protection : Wear safety glasses with side shields (or goggles) and a face shield.

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : When appropriate, use NIOSH/CEN approved respirator.

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

The properties listed below are for the solvent, the main component of this mixture.

Physical state : Liquid

Appearance : Liquid

Molecular mass : 88.11 g/mol

Color : Colorless

Odor : No data available

Odor threshold : No data available

pH : 6.0 - 8 at 500 g/l at 20 °C (68 °F)

Relative evaporation rate (butyl acetate=1) : No data available

Melting point	:	10 - 12 °C (50 -54 °F) - lit.
Freezing point	:	No data available
Boiling point	:	100 - 102 °C (212 - 216 °F) - lit
Flash point	:	12 °C (54 °F) - closed cup
Auto-ignition temperature	:	375 °C (707 °F)
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapor pressure	:	36 hPa (27 mmHg) at 20 °C (68 °F), 53 hPa (40 mmHg) at 25.20 °C (77.36 °F)
Relative vapor density at 20 °C	:	3.04 - (Air = 1.0)
Relative density	:	No data available
Specific gravity / density	:	1.03 g/ml at 25 °C (77 °F)
Solubility	:	Water: completely miscible
Log Pow	:	-0.27
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	:	2 - 22 % (V)

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Vapors may form explosive mixture with air.

10.2. Chemical stability

See storage and expiration date on CoA.

10.3. Possibility of hazardous reactions

No additional information available.

10.4. Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5. Incompatible materials

Oxygen. Oxidizing agent. Halogens. Reducing agents. Percholates. Trimethylaluminum.

10.6. Hazardous decomposition products

Carbon oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

CARBOFURAN UNLABELED 100 UG/ML IN 1,4-DIOXANE	
LD50 oral rat	4200 mg/kg
LD50 dermal rabbit	7858 mg/kg
LC50 inhalation rat (mg/l)	46000 mg/m³ 2 h - Sense Organs and Special Senses (Nose, Eye, Ear and Taste): Eye: Other.
ATE CLP (oral)	4200.000 mg/kg body weight
ATE CLP (dermal)	7858.000 mg/kg body weight
ATE CLP (vapors)	46.000 mg/l/4h
ATE CLP (dust, mist)	46.000 mg/l/4h

1,4-DIOXANE (P-DIOXANE) UNLABELED (123-91-1)	
LD50 oral rat	4200 mg/kg
LD50 dermal rabbit	7858 mg/kg
LC50 inhalation rat (mg/l)	46000 mg/m³ 2 h - Sense Organs and Special Senses (Nose, Eye, Ear and Taste): Eye: Other.
ATE CLP (oral)	4200.000 mg/kg body weight
ATE CLP (dermal)	7858.000 mg/kg body weight
ATE CLP (vapors)	46.000 mg/l/4h
ATE CLP (dust, mist)	46.000 mg/l/4h

CARBOFURAN UNLABELED (1563-66-2 (Unlabeled))	
LD50 oral rat	5 mg/kg
ATE CLP (oral)	5.000 mg/kg body weight
ATE CLP (dermal)	300.000 mg/kg body weight
ATE CLP (gases)	10.000 ppmV/4h
ATE CLP (vapors)	0.050 mg/l/4h
ATE CLP (dust, mist)	0.005 mg/l/4h

Skin corrosion/irritation : Skin - rabbit - Result - No skin irritation (OECD Test Guideline 404)
Skin - Human - Chronic exposure causes drying effect on skin and eczema.
pH: 6.0 - 8 at 500 g/l at 20 °C (68 °F)

Serious eye damage/irritation : Causes serious eye irritation.
Eyes - rabbit - Eye irritation - 24 h
pH: 6.0 - 8 at 500 g/l at 20 °C (68 °F)

Respiratory or skin sensitization : Not available

Germ cell mutagenicity : Laboratory experiments have shown mutagenic effects.

Carcinogenicity : This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification. Limited evidence of carcinogenicity in animal studies.

Reproductive toxicity : Not available

Specific target organ toxicity – single exposure : May cause respiratory irritation.

Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Nausea. Vomiting. Weakness. Dizziness. Vertigo. Headache. Sweating. Loss of appetite. Kidney injury may occur. Liver injury may occur. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated, May cause cyanosis, Shortness of breath, Tremore, Diarrhea, flushing, shivering, dizziness, My cause headache and dizziness, Skin disorders, muscle cramps, tinnitus, Gastrointestinal discomfort. Liver - Irregularities - Based on Human Evidence.

IARC group : 2B

Symptoms/effects after inhalation : May be harmful if inhaled. Causes respiratory tract irritation.

Symptoms/effects after skin contact : May be harmful if absorbed through the skin. Causes skin irritation.

Symptoms/effects after eye contact : Causes eye irritation.

Symptoms/effects after ingestion : May be harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

CARBOFURAN UNLABELED 100 UG/ML IN 1,4-DIOXANE	
LC50 fish 1	985 mg/l Pimephales promelas (fathead minnow) - 96 h
EC50 Daphnia 1	8450 mg/l Daphnia magna (Water flea) - 24 h
ErC50 (algae)	> 500 mg/l Desmodesmus subspicatus (green algae) - 72 h

1,4-DIOXANE (P-DIOXANE) UNLABELED (123-91-1)	
LC50 fish 1	985 mg/l Pimephales promelas (fathead minnow) - 96 h
EC50 Daphnia 1	8450 mg/l Daphnia magna (Water flea) - 24 h
ErC50 (algae)	> 500 mg/l Desmodesmus subspicatus (green algae) - 72 h

CARBOFURAN UNLABELED (1563-66-2 (Unlabeled))	
LC50 fish 1	0.38 mg/l Oncorhynchus mykiss(rainbow trout) - 96 h
EC50 Daphnia 1	0.0018 mg/l Daphnia magna (Water flea) - 48 h
NOEC (chronic)	0.001 mg/l Daphnia - 7 d

12.2. Persistence and degradability

CARBOFURAN UNLABELED 100 UG/ML IN 1,4-DIOXANE		
Persistence and degradability	Biodegradability:	Result: < 5 % - Not readily biodegradable.

1,4-DIOXANE (P-DIOXANE) UNLABELED (123-91-1)		
Persistence and degradability	Biodegradability:	Result: < 5 % - Not readily biodegradable.

12.3. Bioaccumulative potential

CARBOFURAN UNLABELED 100 UG/ML IN 1,4-DIOXANE	
Log Pow	-0.27
Bioaccumulative potential	Does not bioaccumulate.

1,4-DIOXANE (P-DIOXANE) UNLABELED (123-91-1)	
Log Pow	-0.27
Bioaccumulative potential	Does not bioaccumulate.

CARBOFURAN UNLABELED (1563-66-2 (Unlabeled))	
Bioaccumulative potential	Not available.

12.4. Mobility in soil

CARBOFURAN UNLABELED 100 UG/ML IN 1,4-DIOXANE	
Ecology - soil	Not available.

1,4-DIOXANE (P-DIOXANE) UNLABELED (123-91-1)	
Ecology - soil	Not available.

CARBOFURAN UNLABELED (1563-66-2 (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 : 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.

Waste treatment methods : Burn in a chemical incinerator equipped with an afterburner and a scrubber, but use extra care in ignition as this material may be pyrophoric, highly flammable or explosive. Attention : national and/or local laws and regulations may preclude the use of this method.

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) : 1165

DOT NA no. UN1165

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Dioxane

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

DOT RQ : 100 lbs

Marine pollutant : No

14.3. Additional information

Other information : No supplementary information available.

Overland transport

Packing group (ADR) : II

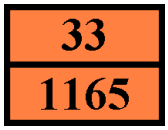
Class (ADR) : 3 - Flammable liquid

Hazard identification number (Kemler No.) : 33

Classification code (ADR) : F1

Hazard labels (ADR) : 3 - Flammable liquids

Orange plates :



Tunnel restriction code (ADR) : D/E

Limited quantities (ADR) 1l

EAC : •2YE

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 : 127

Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L

14.4. Environmental hazards

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

CARBOFURAN UNLABELED 100 UG/ML IN 1,4-DIOXANE	
SARA Section 302 Threshold Planning Quantity (TPQ)	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Subject to reporting requirements of United States SARA Section 313

1,4-DIOXANE (P-DIOXANE) UNLABELED (123-91-1)	
SARA Section 302 Threshold Planning Quantity (TPQ)	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

1,4-DIOXANE (P-DIOXANE) UNLABELED (123-91-1)	
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Subject to reporting requirements of United States SARA Section 313

CARBOFURAN UNLABELED (1563-66-2 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	Subject to reporting requirements of United States SARA Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Subject to reporting requirements of United States SARA Section 313

15.2. International regulations

CANADA

CARBOFURAN UNLABELED 100 UG/ML IN 1,4-DIOXANE
Listed on the Canadian DSL (Domestic Substances List)

15.2.1. National regulations

No additional information available

15.3. US State regulations

CARBOFURAN UNLABELED 100 UG/ML IN 1,4-DIOXANE**()**	
U.S. - California - Proposition 65 - Carcinogens List	Yes
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. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

1,4-DIOXANE (P-DIOXANE) UNLABELED (123-91-1)				
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)
Yes	No	No	No	

CARBOFURAN UNLABELED (1563-66-2 (Unlabeled))				
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	

1,4-DIOXANE (P-DIOXANE) UNLABELED (123-91-1)
State or local regulations
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

CARBOFURAN UNLABELED (1563-66-2 (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

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.

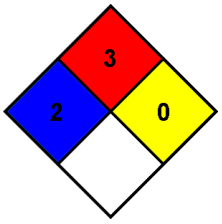
Full text of R-, H- and EUH-phrases:

Acute Tox. 1 (Inhalation)	Acute toxicity (inhalation) Category 1
Acute Tox. 1 (Oral)	Acute toxicity (oral) Category 1
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Carc. 2	Carcinogenicity Category 2
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Flam. Liq. 2	Flammable liquids Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapour
H300	Fatal if swallowed
H311	Toxic in contact with skin
H319	Causes serious eye irritation
H330	Fatal if inhaled
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
R11	Highly flammable
R24	Toxic in contact with skin
R26/28	Very toxic by inhalation and if swallowed
R36/37	Irritating to eyes and respiratory system
R40	Limited evidence of a carcinogenic effect
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
F	Highly flammable
N	Dangerous for the environment
T	Toxic
T+	Very toxic
Xi	Irritant

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual 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.



Hazard Rating

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