

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

Revision date: 24/11/2021 Date of issue: 15/04/2015 Supersedes: 16/05/2018 Version: 2.0

CDLM-9206-S

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

Product identifier

Product form : Mixtures

TRANS-DCCA 100 UG/ML IN ACETONITRILE-D3 (1,CARBOXYL-13C2, 99%;1-D, 97%)95% Product name

CHEMICAL PURITY

: CDLM-9206-S Product code

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

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

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

Classification of the substance or mixture

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

H225 Flam. Liq. 2 Acute Tox. 4 (Oral) H302 Acute Tox. 4 (Dermal) H312 Acute Tox. 4 (Inhalation) H332 H319 Eye Irrit. 2

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 Xn; R20/21/22

Full text of R-phrases: see section 16

GHS-US classification

Flam. Liq. 2 H225 H302 Acute Tox. 4 (Oral) Acute Tox. 4 (Dermal) H312 Acute Tox. 4 (Inhalation) H332 Eve Irrit, 2A H319

Full text of H statements: see section 16

Adverse physicochemical, human health and environmental effects

Lungs, Blood, Kidney, Liver, Central nervous system.

24/11/2021 EN (English US) 1/11

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

2.2 Label elements

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

Hazard pictograms (CLP)





Signal word (CLP) Danger

Hazard statements (CLP) H225 - Highly flammable liquid and vapor

H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled

H319 - Causes serious eye irritation

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 vapors, mist, gas.

P264 - Wash hands, forearms and face 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 labeling

Hazard pictograms (GHS-US)





GHS02

GHS07

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) H225 - Highly flammable liquid and vapor

H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled

H319 - Causes serious eye irritation

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 hands, forearms and face thoroughly after handling.

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

P271 - Use only outdoors or in a well-ventilated area.

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

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

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

P312 - Call a doctor if you feel unwell

P321 - Specific treatment (see Hazardous component(s) for labeling on this label)

P330 - Rinse mouth.

P337+P313 - If eye irritation persists: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse.

P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO2), dry

extinguishing powder to extinguish.

P403+P235 - Store in a well-ventilated place. Keep cool.

P501 - Dispose of contents/container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation

Other hazards

No additional information available

24/11/2021 EN (English US) 2/11

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

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

3.2. Mixtures			
Name	Product identifier	%	Classification according to Directive 67/548/EEC
ACETONITRILE-D3 (D, 99.8%)	(CAS-No.) 2206-26-0 (EC-No.) 218-616-5 (EC Index-No.) 608-001-00-3 (Unlabeled) (REACH-no) 01-2119471307-38	99.988	F; R11 Xi; R36 Xn; R20/21/22
TRANS-DCCA (1,CARBOXYL-13C2,99%;1-D,97%)95% CHEMICAL PURITY	(CAS-No.) 59042-50-1 (Unlabeled)	0.012	Xi; R36/37/38
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ACETONITRILE-D3 (D, 99.8%)	(CAS-No.) 2206-26-0 (EC-No.) 218-616-5 (EC Index-No.) 608-001-00-3 (Unlabeled) (REACH-no) 01-2119471307-38	99.988	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319
TRANS-DCCA (1,CARBOXYL-13C2,99%;1-D,97%)95% CHEMICAL PURITY	(CAS-No.) 59042-50-1 (Unlabeled)	0.012	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Name	Product identifier	%	GHS-US classification
ACETONITRILE-D3 (D, 99.8%)	(CAS-No.) 2206-26-0	99.988	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2A, H319
TRANS-DCCA (1,CARBOXYL-13C2,99%;1-D,97%)95% CHEMICAL PURITY	(CAS-No.) 59042-50-1 (Unlabeled)	0.012	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335

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 : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Evacuate area.

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

breathing, give artificial respiration. Call a physician immediately. Get immediate medical

advice/attention

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.

Immediately call a poison center or doctor/physician. Specific measures (see Hazard pictograms (CLP) on this label). Wash with plenty of soap and water. Wash contaminated

clothing before reuse.

First-aid measures after eye contact : Immediately rinse with water for a prolonged period while holding the eyelids wide open. Get

immediate medical advice/attention.

First-aid measures afteringestion : Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

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

Symptoms/effects after inhalation : Harmful if inhaled. May cause respiratory irritation.

Symptoms/effects after skin contact : Repeated exposure to this material can result in absorption through skin causing significant

health hazard. Harmful in contact with skin.

Symptoms/effects after eye contact : Causes serious eye irritation.

Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard. 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 : Water spray. Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapor.

24/11/2021 EN (English US) 3/11

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

Explosion hazard : May form flammable/explosive vapor-air mixture.

: Vapors may form explosive mixture with air. Reactivity

Advice for firefighters

: Wear a self contained breathing apparatus. Fight fire with normal precautions from a 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.

Other information : Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Remove ignition sources. Use special care to avoid static electric charges. No open flames. No General measures

smokina.

6.1.1. For non-emergency personnel

Emergency procedures Use personal protective equipment as required. Avoid breathing vapors, mist, gas. Ensure adequate air ventilation. Evacuate unnecessary personnel. Eliminate all ignition sources if safe

to do so. Provide adequate ventilation to minimize dust and/or vapor concentrations. Special attention should be given to low areas/pits where flammable vapors can accumulate.

6.1.2. For emergency responders

Protective equipment : For further information refer to section 8: "Exposure controls/personal protection".

Environmental precautions

Prevent entry to sewers and public waters. Do not allow to enter drains or water courses. Avoid release to the environment.

Methods and material for containment and cleaning up

Dike and contain spill. Disposal should be in accordance with applicable Federal, State and For containment

Collect spillage. Small quantities of liquid spill: take up in non-combustible absorbent material Methods for cleaning up

and shovel into container for disposal. This material and its container must be disposed of in a

safe way, and as per local legislation.

Reference to other sections

No additional information available

SECTION 7: Handling and storage

Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.

No open flames. No smoking. Use only non-sparking tools. Use only outdoors or in a well-Precautions for safe handling

ventilated area.

Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or Hygiene measures smoke when using this product. Wash hands, forearms and face thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Proper grounding procedures to avoid static electricity should be followed. Ground/bond Technical measures

container and receiving equipment. Use explosion-proof electrical equipment.

Storage conditions Store at room temperature away from light and moisture.

Incompatible materials Heat sources.

Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

Control parameters

TRANS-DCCA 100 UG/ML IN ACETONITRILE-D3 (1,CARBOXYL-13C2, 99%;1-D, 97%)95% CHEMICAL PURITY		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	20.00000000 ppm Lower Respiratory Tract irritation. Not classifiable as a human carcinogen.
USA NIOSH	NIOSH REL (TWA) (mg/m³)	34 mg/m³ Forms Cyanide in the body.
USA NIOSH	NIOSH REL (TWA) (ppm)	20 ppm Forms Cyanide in the body.
USA OSHA	OSHA PEL (TWA) (mg/m³)	70 mg/m³ The value in mg/m3 is approximate.
USA OSHA	OSHA PEL (TWA) (ppm)	40 ppm The value in mg/m3 is approximate.

24/11/2021 EN (English US) 4/11

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

ACETONITRILE-D3 (D, 99.8%) (2206-26-0)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	20.00000000 ppm USA. ACGIH Threshold Limit Values (TLV) Lower Respiratory Tract irritation. Not classifiable as a human carcinogen. Danger of cutaneous absorption
USA NIOSH	NIOSH REL (TWA) (mg/m³)	34 mg/m³ USA. NIOSH Recommended Exposure Limits. Forms Cyanide in the body.
USA NIOSH	NIOSH REL (TWA) (ppm)	20 ppm USA. NIOSH Recommended Exposure Limits.Forms Cyanide in the body.
USA OSHA	OSHA PEL (TWA) (mg/m³)	70 mg/m³ USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants. The value in mg/m3 is approximate.
USA OSHA	OSHA PEL (TWA) (ppm)	40 ppm USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants. The value in mg/m3 is approximate.

8.2. Exposure controls

Appropriate engineering controls : Handle in accordance with good industrial hygiene and safety procedures.

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









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

Hand protection : Wear suitable protective clothing and gloves.

Eye protection : Chemical goggles or face shield with safety glasses.

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

Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is

recommended.

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, clear

Molecular mass : 44.07 g/mol (Labeled)

Color : Colorless
Odor : Ether-like

Odor threshold : No data available
pH : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Melting point : -48 °C (-54°F)
Freezing point : No data available
Boiling point : 81 - 82 °C (178 - 180 °F)
Flash point : 2 °C (35.6 °F) - closed cup

 $\begin{array}{lll} \mbox{Auto-ignition temperature} & : & 523 \ ^{\circ}\mbox{C} \ (973 \ ^{\circ}\mbox{F}) \\ \mbox{Decomposition temperature} & : & \mbox{No data available} \end{array}$

Flammability (solid, gas) : Highly flammable liquid and vapor

Vapor pressure : 73.18 hPa (54.89 mmHg) at 15°C (59 °F), 119.81 hPa (89.86 mmHg) at 25°C(77 °F)

Relative vapor density at 20 °C : 1.42 - (Air = 1.0)
Relative density : No data available
Specific gravity / density : 0.786 g/ml
Solubility : Water: 100 %
Log Pow : -0.34

Log Kow : No data available Viscosity, kinematic : No data available

24/11/2021 EN (English US) 5/11

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

: No data available Viscosity, dynamic Explosive properties : No data available Oxidizing properties : No data available : 4.4 - 16 vol % **Explosion limits**

Other information

No additional information available

SECTION 10: Stability and reactivity

Vapors may form explosive mixture with air.

Chemical stability

See storage and expiration date on CoA.

Possibility of hazardous reactions

No additional information available

Conditions to avoid

Open flame. Direct sunlight.

10.5. Incompatible materials

Acids, Bases, Oxidizing agents, Reducing agents, Alkali metals.

Hazardous decomposition products

May release flammable gases.

SECTION 11: Toxicological information

Information on toxicological effects

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

TRANS-DCCA 100 UG/ML IN ACETONITRILE-D3 (1,CARBOXYL-13C2, 99%;1-D, 97%)95% CHEMICAL PURITY		
LD50 oral rat	2460 mg/kg	
LD50 dermal rabbit	2000 mg/kg	
LC50 inhalation rat (mg/l)	≥ 26.8 mg/l	
LC50 inhalation rat (ppm)	7551 ppm - 8h	
ATE CLP (oral)	500.000 mg/kg body weight	
ATE CLP (dermal)	2000.000 mg/kg body weight	
ATE CLP (gases)	4500.000 ppmV/4h	
ATE CLP (vapors)	11.000 mg/l/4h	
ATE CLP (dust, mist)	1.500 mg/l/4h	

ACETONITRILE-D3 (D, 99.8%) (2206-26-0)	
LD50 oral rat	1320 - 6690 mg/kg
LD50 dermal rabbit	> 2000 mg/kg male and female (OECD Test Guideline 402)
LC50 inhalation rat (mg/l)	≥ 26.8 mg/l - 4h
LC50 inhalation rat (ppm)	3587 ppm Mouse - 4h (OECD Test Guideline 403)
ATE CLP (oral)	500.000 mg/kg body weight
ATE CLP (dermal)	2000.000 mg/kg body weight
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h

: Skin - Rabbit - No skin irritation Skin corrosion/irritation Serious eye damage/irritation Causes serious eye irritation. Rabbit - Eyes - Irritating to eyes

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

sensitization on laboratory animals. (OECD 406 method)

Germ cell mutagenicity Not classified

Carcinogenicity No evidence of carcinogenicity in animal studies (when indicated).

Reproductive toxicity : Animal testing did not show any effects on fertility.

Specific target organ toxicity - single exposure The substance or mixture is not classified as specific target organ toxicant.

Specific target organ toxicity - repeated : The substance or mixture is not classified as specific target organ toxicant. exposure

24/11/2021 EN (English US) 6/11

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

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms

Treat as cyanide poisoning. Always have on hand a cyanide first-aid kit, together with proper instructions. The onset of symptoms is generally delayed pending conversion to cyanide. Nausea, Vomiting, Diarrhea, Headache, Dizziness, Rash, Cyanosis, Excitement, Depression, Drowsiness, Impaired judgment, Lack of coordination, Stupor, Death. Lungs - Lung edema - Based on human evidence. Harmful if swallowed. Harmful in contact with skin. 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.

Symptoms/effects after inhalation : Harmful if inhaled. May cause respiratory irritation.

Symptoms/effects after skin contact : Repeated exposure to this material can result in absorption through skin causing significant

health hazard. Harmful in contact with skin.

Symptoms/effects after eye contact : Causes serious eye irritation.

Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard. Harmful if

swallowed.

SECTION 12: Ecological information

12.1. Toxicity

TRANS-DCCA 100 UG/ML IN ACETONITRILE-D3 (1,CARBOXYL-13C2, 99%;1-D, 97%)95% CHEMICAL PURITY		
LC50 fish 1	1640 mg/l Pimephales promelas (fathead minnow) - 96h	
EC50 Daphnia 1	3600 mg/l Daphnia magna (Water flea) - 48h	
NOEC (chronic)	640 mg/l Daphnia magna (Water flea) - 14d	
ACETONITRILE-D3 (D, 99.8%) (2206-26-0)		
LC50 fish 1	1640 mg/l Pimephales promelas (fathead minnow) - 96h	
EC50 Daphnia 1	3600 mg/l Daphnia magna (Water flea) - 48h (OECD Test Guideline 202)	
NOEC (acute)	102 mg/l Oryzias latipes - 21d	
NOEC (chronic)	160 mg/l Daphnia magna (Water flea) - 21d	

12.2. Persistence and degradability

TRANS-DCCA 100 UG/ML IN ACETONITRILE-D3 (1,CARBOXYL-13C2, 99%;1-D, 97%)95% CHEMICAL PURITY	
Persistence and degradability	Biodegradability Result: - Readily biodegradable.
ACETONITRILE-D3 (D, 99.8%) (2206-26-0)	
BOD (% of ThOD)	84 % ThOD
Biodegradation	Readily biodegradable. (OECD Test Guideline 301C)

12.3. Bioaccumulative potential

TRANS-DCCA 100 0G/ML IN ACETONITRILE-D3 (1,CARBOXTE-13CZ, 99%;1-D, 97%)95% CHEMICAL PORTIT		
Log Pow	-0.34	
Bioaccumulative potential	No bioaccumulation is to be expected (log Pow <= 4).	
ACETONITRILE-D3 (D, 99.8%) (2206-26-0)		
Bioaccumulative potential	No bioaccumulation is to be expected (log Pow <= 4).	

12.4. Mobility in soil

TRANS-DCCA 100 UG/ML IN ACETONITRILE-D3 (1,CARBOXYL-13C2, 99%;1-D, 97%)95% CHEMICAL PURITY	
Ecology - soil Not expected to absorb on soil.	
ACETONITRILE-D3 (D, 99.8%) (2206-26-0)	
Ecology - soil	Not expected to absorb on soil.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other adverse effects : Avoid release to the environment. Disposal must be done according to official regulations. May cause long lasting harmful effects to aquatic life.

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.

24/11/2021 EN (English US) 7/11

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

Ecology - waste materials : Dispose of as unused product.

SECTION 14: Transport information

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

UN number

UN-No.(DOT) : 1648 DOT NA no. UN1648

UN proper shipping name

Proper Shipping Name (DOT) : Acetonitrile

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

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

(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.

T7 - 4 178.274(d)(2) Normal...... 178.275(d)(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) 150 DOT Packaging Non Bulk (49 CFR 173.xxx) : 202 DOT Packaging Bulk (49 CFR 173.xxx) : 242

Additional information

Other information : No supplementary information available.

Overland transport

Packing group (ADR) : 11

Class (ADR) : 3 - Flammable liquid

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

Hazard labels (ADR) 3 - Flammable liquids

Orange plates

Tunnel restriction code (ADR) : D/E Limited quantities (ADR) 11 : •2YF Excepted quantities (ADR) : F2

24/11/2021 EN (English US) 8/11

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

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.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

MFAG-No : 127

Air transport

DOT Quantity Limitations Passenger aircraft/rail : 5L

(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

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

TRANS-DCCA 100 UG/ML IN ACETONITRILE-D3 (1,CARBOXYL-13C2, 99%;1-D, 97%)95% CHEMICAL PURITY		
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of 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	Subject to reporting requirements of United States SARA Section 313	
TRANS-DCCA (1 CARROXYI -13C2 99%-1-D 97%)95% CHEMICAL PURITY (59042-50-1 (Unlabeled))		

TRANS-DCCA (1,CARBOXYL-13C2, 99%;1-D, 97%)95% CHEMICAL PURITY (59042-50-1 (Unlabeled))	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.

ACETONITRILE-D3 (D, 99.8%) (2206-26-0)	
SARA Section 302 Threshold Planning Quantity (TPQ)	Listed on the United States SARA Section 302
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard
SARA Section 313 - Emission Reporting	Subject to reporting requirements of United States SARA Section 313

15.2. International regulations

CANADA

TRANS-DCCA 100 UG/ML IN ACETONITRILE-D3 (1,CARBOXYL-13C2, 99%;1-D, 97%)95% CHEMICAL PURITY

Listed on the Canadian DSL (Domestic Substances List)

15.2.1. National regulations

No additional information available

15.3. US State regulations

TRANS-DCCA 100 UG/ML IN ACETONITRILE-D3 (1,CARBOXYL-13C2, 99%;1-D, 97%)95% CHEMICAL PURITY()			
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 New Jersey - Right to Know Hazardous Substance List		

24/11/2021 EN (English US) 9/11

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

TRANS-DCCA 100 UG/ML IN ACETONITRILE-D3 (1,CARBOXYL-13C2, 99%;1-D, 97%)95% CHEMICAL PURITY()					
U.S Pennsylvania - RTK (Right to Know) List					
TRANS-DCCA (1,CARBOXYL-13C2, 99%;1-D, 97%)95% CHEMICAL PURITY (59042-50-1 (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		
ACETONITRILE-D3 (D, 99.8%) (2206-26-0)					
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		
TRANS DOCA (4 CARROVVI 42C2 000/4 D 070/050/ CHEMICAL DUDITY (500/2 50 4 (Hele-Led))					

TRANS-DCCA (1,CARBOXYL-13C2, 99%;1-D, 97%)95% CHEMICAL PURITY (59042-50-1 (Unlabeled))

State or local regulations

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

ACETONITRILE-D3 (D, 99.8%) (2206-26-0)

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. 4 (Dermal)	Acute toxicity (dermal) Category 4	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4	
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4	
Eye Irrit. 2	Serious eye damage/eye irritation Category 2	
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	
H225	Highly flammable liquid and vapor	
H302	Harmful if swallowed	
H312	Harmful in contact with skin	
H315	Causes skin irritation	
H319	Causes serious eye irritation	
H332	Harmful if inhaled	
H335	May cause respiratory irritation	
R11	Highly flammable	
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed	
R36	Irritating to eyes	
R36/37/38	Irritating to eyes, respiratory system and skin	
F	Highly flammable	
Xi	Irritant	
Xn	Harmful	

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.

2 0

24/11/2021 EN (English US) 10/11

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

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

24/11/2021 EN (English US) 11/11