

TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE (D15, 98%) 100 UG/ML IN ACETONITRILE

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: 16/01/2014 Revision date: 04/05/2018 Supersedes: 20/10/2017 Version: 2.1 DLM-9315-S

SECTION 1: Ider	ntification of the substance/mixture and of the company/undertaking
1.1. Product id	entifier
Product form	: Mixtures
Product name	: TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE (D15, 98%) 100 UG/ML IN ACETONITRILE
Product code	: DLM-9315-S
1.2. Relevant ic	dentified uses of the substance or mixture and uses advised against
1.2.1. Relevant ic	dentified uses
Main use category	: Professional use
Industrial/Professiona	al use spec : For professional use only
1.2.2. Uses advis	sed against
No additional informa	-
1.3. Details of t	the supplier of the safety data sheet
Cambridge Isotope La	
50 Frontage Road	
Andover, MA 01810 USA	
	74 Int: 1-978-749-8000
cilsales@isotope.com	n www.isotope.com
Emergency	y telephone number
Emergency numbers:	
Chemtrec: 1-800-424	
International: 1-703-7	741-5970 (24 hours)
SECTION 2: Haz	zards identification
2.1. Classificat	tion of the substance or mixture
Classification accor	rding to Regulation (EC) No. 1272/2008 [CLP]
Flam. Liq. 2	H225
Acute Tox. 4 (Oral)	H302
Acute Tox. 4 (Dermal	I) H312
Acute Tox. 4 (Inhalati	ion) H332
Full text of hazard cla	asses and H-statements : see section 16
Classification accor	rding to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]
F; R11	
Xi; R36	
Xn; R20/21/22	
Full text of R-phrases	s: see section 16
GHS-US classification	on
Flam. Lig. 2	H225
Acute Tox. 4 (Oral)	H302
Acute Tox. 4 (Dermal	I) H312

Acute Tox. 4 (Inhalation) H332 Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

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

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2.2. Label elements		
Labeling according to Regulation (EC) N	o. 1272/2008 [CLP]	
Hazard pictograms (CLP)		
	GHS02 GHS07	
Signal word (CLP)	: Danger	
Hazardous ingredients	: ACETONITRILE UNLABELED	
Hazard statements (CLP)	: H225 - Highly flammable liquid and vapor H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled	
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 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	
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 P312 - Call a doctor if you feel unwell P322 - Specific treatment (see Hazard pictograms (CLP) on this label) P330 - Rinse mouth 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

2.3. Other hazards

2.3.			
No add	No additional information available		
SECT	SECTION 3: Composition/Information on ingredients		
3.1.	Substances		
Not applicable			

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6, 2012 / Rules and Regulations			
3.2. Mixtures			
Name	Product identifier	%	Classification according to Directive 67/548/EEC
ACETONITRILE UNLABELED	(CAS No) 75-05-8 (EC No) 200-835-2 (EC Index No) 608-001-00-3 (REACH-no) 01-2119471307-38	99.987	F; R11 Xi; R36 Xn; R20/21/22
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE (D15, 98%)	(CAS No) 13674-87-8 (Unlabeled) (EC No) 237-159-2	0.013	Carc.Cat.3; R40 N; R51/53
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ACETONITRILE UNLABELED	(CAS No) 75-05-8 (EC No) 200-835-2 (EC Index No) 608-001-00-3 (REACH-no) 01-2119471307-38	99.987	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE (D15, 98%)	(CAS No) 13674-87-8 (Unlabeled) (EC No) 237-159-2	0.013	Acute Tox. 4 (Oral), H302 Aquatic Chronic 2, H411
Name	Product identifier	%	GHS-US classification
ACETONITRILE UNLABELED	(CAS No) 75-05-8	99.987	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2A, H319
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE (D15, 98%)	(CAS No) 13674-87-8 (Unlabeled)	0.013	Acute Tox. 4 (Oral), H302 Aquatic Chronic 2, H411

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 after ingestion : 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/injuries after inhalation	: Harmful if inhaled. May cause respiratory irritation.		
Symptoms/injuries after skin contact : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin.			
Symptoms/injuries after eye contact	: Causes serious eye irritation.		
Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard. Harmful if swallowed.			
4.3. Indication of any immediate medica	I attention and special treatment needed		

No additional information available

SECT	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 se	ibstance or mixture		
Fire haz	zard	: Highly flammable liquid and vapor.		
Explosion hazard		: May form flammable/explosive vapor-air mixture.		
Reactivity		: Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.		

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5.3. Advice for firefighters	
Firefighting instructions	: Wear a self contained breathing apparatus. Fight fire with normal precautions from a reasonable distance.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing apparatus, rubber boots and thick rubber gloves.
Other information	: Use water spray to cool exposed surfaces.
SECTION 6: Accidental release me	asures
6.1. Personal precautions, protective	equipment and emergency procedures
General measures	: Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.
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	: 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 entry to sewers and public waters. Do	o not allow to enter drains or water courses. Avoid release to the environment.
6.3. Methods and material for contain	ment and cleaning up
For containment	: Dike and contain spill. Disposal should be in accordance with applicable Federal, State and local regulations.
Methods for cleaning up	: Collect spillage. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. 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	: Handle empty containers with care because residual vapors are flammable.
Precautions for safe handling	: No open flames. No smoking. Use only non-sparking tools.

Precautions for safe handling Hygiene measures	 No open flames. No smoking. Use only non-sparking tools. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling.
7.2. Conditions for safe storage, i	including any incompatibilities
Technical measures	 Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof Lighting equipment, ventilating equipment.
Storage conditions Incompatible materials	Store at room temperature away from light and moisture.Heat sources.

Specific end use(s) No additional information available

SECTION 8: Exposure controls/personal protection		
8.1. Control parameters		
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE (D15, 98%) 100 UG/ML IN ACETONITRILE		
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/m ³)	34 mg/m ³ 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/m ³ The value in mg/m3 is approximate.
USA OSHA	OSHA PEL (TWA) (ppm)	40 ppm The value in mg/m3 is approximate.

7.3.

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ACETONITRILE UNLABELED (75-05-8)		
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/m ³)	34 mg/m ³ 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/m ³ The value in mg/m3 is approximate.
USA OSHA	OSHA PEL (TWA) (ppm)	40 ppm 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.
Hand protection Eye protection Skin and body protection Respiratory protection	 Wear suitable protective clothing and gloves. Chemical goggles or face shield with safety glasses. Wear suitable protective clothing, gloves and eye/face protection. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and c	.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	: 41.05 g/mol		
Color	: Colorless		
Odor	: Ether-like		
Odor threshold	: No data available		
рН	: 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		
Auto-ignition temperature	: 523 °C (973 °F)		
Decomposition temperature	: No data available		
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		
Viscosity, dynamic	: No data available		
Explosive properties	: No data available		
Oxidizing properties	: No data available		
Explosion limits : 4.4 - 16 vol %			
9.2. Other information	9.2. Other information		

No additional information available

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SECTION 10: Stability and reactivity	
10.1. Reactivity	
Highly flammable liquid and vapor. May form flam	nable/explosive vapor-air mixture.
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	
Open flame. Direct sunlight.	
10.5. Incompatible materials	
Acids, Bases, Oxidizing agents, Reducing agents,	Alkali metals.
10.6. Hazardous decomposition products	
May release flammable gases. Carbon oxides (CC	0, CO2). Nitrogen oxides.
SECTION 11: Toxicological information 11.1. Information on toxicological effects	
	: Oral: Harmful if swallowed. Dermal: Harmful in contact with skin. Inhalation: Harmful if inhaled.
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE	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)	500.065 mg/kg body weight
ATE CLP (dermal)	2000.000 mg/kg body weight
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (gases) ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 4640 mg/kg
LC50 inhalation rat (mg/l)	> ≥ 5.22 mg/l
ATE CLP (oral)	500.000 mg/kg body weight
ACETONITRILE UNLABELED (75-05-8)	
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
Skin corrosion/irritation	: Not classified
	Skin
	Rabbit No skin irritation
Serious eye damage/irritation	: Not classified
Senous eye damage/imation	
	Rabbit Eves
	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).
	: Animal testing did not show any effects on fertility.
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: Not classified The substance or mixture is not classified as specific target organ toxicant.
: Not classified The substance or mixture is not classified as specific target organ toxicant.
: Not classified
: Harmful if swallowed. Harmful in contact with skin.
: Harmful if inhaled. May cause respiratory irritation.
: Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin.
: Causes serious eye irritation.
: Swallowing a small quantity of this material will result in serious health hazard. 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.		
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE (D15, 98%) 100 UG/ML IN ACETONITRILE			
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		
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE (D15, 98%) (13674-87-8 (Unlabeled))			
LC50 fish 1	1.1 mg/l semi-static test Oncorhynchuss mykiss (rainbow trout) - 96 h		
EC50 Daphnia 1	3.8 mg/l Immobilization Daphnia magna (Water flea) - 48 h		
ACETONITRILE UNLABELED (75-05-8)			
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		

12.2. Persistence and degradability

TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE (D15, 98%) 100 UG/ML IN ACETONITRILE			
Biodegradability Result: - Readily biodegradable.			
E (D15, 98%) (13674-87-8 (Unlabeled))			
Biodegradability aerobic - Exposure time 28 d.			
Biodegradability Result: - Readily biodegradable.			
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE (D15, 98%) 100 UG/ML IN ACETONITRILE			
-0.34			
No bioaccumulation is to be expected (log Pow <= 4).			
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE (D15, 98%) (13674-87-8 (Unlabeled))			
3.69 at 20 °C (68 °F)			
-0.34			
No bioaccumulation is to be expected (log Pow <= 4).			
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE (D15, 98%) 100 UG/ML IN ACETONITRILE			
Not expected to absorb on soil.			
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE (D15, 98%) (13674-87-8 (Unlabeled))			
Not available.			
ACETONITRILE UNLABELED (75-05-8)			
Not expected to absorb on soil.			

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12.5. Results of PBT and vPvB assessme	nt
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 consideration	1S
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.
Additional information	: Handle empty containers with care because residual vapors are flammable.
Ecology - waste materials	: Dispose of as unused product.
SECTION 14: Transport information	
In accordance with ADR / RID / IMDG / IATA / A	DN
14.1. UN number	
UN-No.(DOT)	: 1648
DOT NA no.	UN1648
14.2. 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)	FLAMMABLE UQUID 3 : II - Medium Danger
DOT Special Provisions (49 CFR 172.102)	 II Median Darget 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. T7 - 4 178.274(d)(2) Normal
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	: 127
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)	: F1

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Orange plates : 33 1648 Tunnel restriction code (ADR) : D/E Limited quantities (ADR) : D/E Limited quantities (ADR) : E2 Transport by sea	Hazard labels (ADR)	: 3 - Flammable liquids
Jail Jail Tunnel restriction code (ADR) : D/E Limited quantities (ADR) 11 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 passenger vessel carrying a number of passengers limited to not more than the larger of 25 passenger vessel is 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 : 5L DOT Quantity Limitations Passenger aircraft/rail : 5L OT Quantity Limitations Cargo aircraft only (49 : 60 L CFR 175.75 : Flammable liquids		
Limited quantities (ADR) 11 Excepted quantities (ADR) : E2 Transport by sea	Orange plates	
Excepted quantities (ADR) : E2 Transport by sea	Tunnel restriction code (ADR)	: D/E
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) : 60 L CFR 175.75) : Flammable liquids	Limited quantities (ADR)	1
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 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: 127Air transport 	Excepted quantities (ADR)	: E2
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 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: 127Air transport DOT Quantity Limitations Passenger aircraft/rail: 5LOCT Quantity Limitations Cargo aircraft only (49: 60 LCFR 173.27): Flammable liquids	Transport by sea	
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		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
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	DOT Vessel Stowage Other	: 40 - Stow "clear of living quarters"
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	MFAG-No	: 127
(49 CFR 173.27) DOT Quantity Limitations Cargo aircraft only (49 : 60 L CFR 175.75) Civil Aeronautics Law : Flammable liquids	Air transport	
CFR 175.75) Civil Aeronautics Law : Flammable liquids		: 5L
		: 60 L
	Civil Aeronautics Law	: Flammable liquids
AAA Environmental haranda	44.4 Environmental herenda	
14.4. Environmental hazards Other information Other information Other information Other information		No supplementary information sucilable

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		
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE (D15, 98%) 100 UG/ML IN ACETONITRILE		
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	
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE (D15, 98%) (13674-87-8 (Unlabeled))		
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard	
ACETONITRILE UNLABELED (75-05-8)		
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	

IN ACETONITRILE DLM-9315-S

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

15.2. International regulations

CANADA

TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE (D15, 98%) 100 UG/ML IN ACETONITRILE

Listed on the Canadian DSL (Domestic Substances List)

15.2.1. National regulations

TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE (D15, 98%) 100 UG/ML IN ACETONITRILE

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

15.3. US State regulations				
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE (D15, 98%) 100 UG/ML IN ACETONITRILE				
U.S California - Proposition 65 - Carcinogens List		No		
U.S California - Proposition Toxicity	n 65 - Developmental	No		
U.S California - Proposition Toxicity - Female	n 65 - Reproductive	No		
U.S California - Proposition Toxicity - Male	n 65 - Reproductive	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		
TRIS(1,3-DICHLORO-2-PRO	OPYL)PHOSPHATE (D15, 9	98%) (13674-87-8 (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 UNLABELI	ED (75-05-8)	<u>.</u>	·	
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	
TRIS(1,3-DICHLORO-2-PRO	OPYL)PHOSPHATE (D15, 9	98%) (13674-87-8 (Unlabeled))		
State or local regulations				
U.S Pennsylvania - RTK (Right to Know) List U.S New Jersey - Right to Know Hazardous Substance List WARNING! This product contains a chemical known by the state of California to cause cancer.				
ACETONITRILE UNLABELED (75-05-8)				
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				

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
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Flam. Liq. 2	Flammable liquids Category 2

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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

H225	Highly flammable liquid and vapor
H302	Harmful if swallowed
H312	Harmful in contact with skin
H319	Causes serious eye irritation
H332	Harmful if inhaled
H411	Toxic to aquatic life with long lasting effects
R11	Highly flammable
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed
R36	Irritating to eyes
R40	Limited evidence of a carcinogenic effect
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
F	Highly flammable
Ν	Dangerous for the environment
Xi	Irritant
Xn	Harmful

NFPA	health	hazard
INFER	neaiin	nazaiu

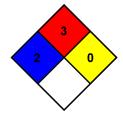
NFPA fire hazard

NFPA reactivity

: 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.

: 0 - Material that in themselves are normally stable, even under fire conditions.



HMIS III 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