



PHOSPHORUS FLAME RETARDANT STANDARD MIXTURE UNLABELED 10 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: 16/10/2017

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ES-5530

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

1.1. Product identifier

Product form : Mixtures
Product name : PHOSPHORUS FLAME RETARDANT STANDARD MIXTURE UNLABELED 10 UG/ML IN ACETONITRILE
Product code : ES-5530

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
Acute Tox. 4 (Oral) H302
Acute Tox. 4 (Dermal) H312
Acute Tox. 4 (Inhalation:vapour) H332
Eye Irrit. 2 H319

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
Acute Tox. 4 (Oral) H302
Acute Tox. 4 (Dermal) H312
Acute Tox. 4 (Inhalation) H332
Eye 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.

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2.2. Label elements

Labeling according to Regulation (EC) No. 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
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 fume, 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
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 fume, 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

2.3. Other hazards

No additional information available

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SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

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	99.9909	F; R11 Xi; R36 Xn; R20/21/22
TRIPROPYL PHOSPHATE UNLABELED	(CAS-No.) 513-08-6 (EC-No.) 208-151-6	0.0013	Xn; R20/21/22 Xi; R36/37/38
TRI-N-BUTYL PHOSPHATE UNLABELED	(CAS-No.) 126-73-8 (EC-No.) 204-800-2 (EC Index-No.) 015-014-00-2	0.0013	Carc.Cat.3; R40 Xn; R20/21/22 Xi; R36/38 N; R51
TRIS(2-CHLOROETHYL)PHOSPHATE UNLABELED substance listed as REACH Candidate (Tris(2-chloroethyl)phosphate) substance listed in REACH Annex XIV (Tris (2-chloroethyl) phosphate (TCEP))	(CAS-No.) 115-96-8 (EC-No.) 204-118-5 (EC Index-No.) 015-102-00-0	0.0013	Carc.Cat.3; R40 Repr.Cat.1; R60 Repr.Cat.1; R61 Xn; R22 N; R51/53
TRIS(1-CHLORO-2-PROPYL)PHOSPHATE UNLABELED	(CAS-No.) 13674-84-5 (Unlabeled) (EC-No.) 237-158-7	0.0013	Xn; R22
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE UNLABELED	(CAS-No.) 13674-87-8 (EC-No.) 237-159-2	0.0013	Carc.Cat.3; R40 N; R51/53
TRIETHYL PHOSPHATE UNLABELED	(CAS-No.) 78-40-0 (EC-No.) 201-114-5 (EC Index-No.) 015-013-00-7	0.0013	Xn; R22 Xi; R36
TRIPHENYL PHOSPHATE UNLABELED	(CAS-No.) 115-86-6 (EC-No.) 204-112-2	0.0013	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	99.9909	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319
TRIPROPYL PHOSPHATE UNLABELED	(CAS-No.) 513-08-6 (EC-No.) 208-151-6	0.0013	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
TRI-N-BUTYL PHOSPHATE UNLABELED	(CAS-No.) 126-73-8 (EC-No.) 204-800-2 (EC Index-No.) 015-014-00-2	0.0013	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351
TRIS(2-CHLOROETHYL)PHOSPHATE UNLABELED substance listed as REACH Candidate (Tris(2-chloroethyl)phosphate) substance listed in REACH Annex XIV (Tris (2-chloroethyl) phosphate (TCEP))	(CAS-No.) 115-96-8 (EC-No.) 204-118-5 (EC Index-No.) 015-102-00-0	0.0013	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Repr. 1B, H360F Aquatic Chronic 2, H411
TRIS(1-CHLORO-2-PROPYL)PHOSPHATE UNLABELED	(CAS-No.) 13674-84-5 (Unlabeled) (EC-No.) 237-158-7	0.0013	Acute Tox. 4 (Oral), H302
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE UNLABELED	(CAS-No.) 13674-87-8 (EC-No.) 237-159-2	0.0013	Carc. 2, H351 Aquatic Chronic 2, H411
TRIETHYL PHOSPHATE UNLABELED	(CAS-No.) 78-40-0 (EC-No.) 201-114-5 (EC Index-No.) 015-013-00-7	0.0013	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319
TRIPHENYL PHOSPHATE UNLABELED	(CAS-No.) 115-86-6 (EC-No.) 204-112-2	0.0013	Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Name	Product identifier	%	GHS-US classification
ACETONITRILE UNLABELED	(CAS-No.) 75-05-8	99.9909	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2A, H319

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Name	Product identifier	%	GHS-US classification
TRIPROPYL PHOSPHATE UNLABELED	(CAS-No.) 513-08-6	0.0013	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
TRI-N-BUTYL PHOSPHATE UNLABELED	(CAS-No.) 126-73-8	0.0013	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 2, H351 Aquatic Acute 2, H401
TRIS(2-CHLOROETHYL)PHOSPHATE UNLABELED	(CAS-No.) 115-96-8	0.0013	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Repr. 1B, H360 Aquatic Chronic 2, H411
TRIS(1-CHLORO-2-PROPYL)PHOSPHATE UNLABELED	(CAS-No.) 13674-84-5 (Unlabeled)	0.0013	Acute Tox. 4 (Oral), H302 Aquatic Acute 3, H402
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE UNLABELED	(CAS-No.) 13674-87-8	0.0013	Carc. 2, H351 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
TRIETHYL PHOSPHATE UNLABELED	(CAS-No.) 78-40-0	0.0013	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
TRIPHENYL PHOSPHATE UNLABELED	(CAS-No.) 115-86-6	0.0013	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	: 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	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. 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/effects after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.
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.

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.
Explosion hazard	: May form flammable/explosive vapor-air mixture.
Reactivity	: Vapors may form explosive mixture with air.

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 unopened containers.

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SECTION 6: Accidental release measures

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

6.2. Environmental precautions

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

6.3. Methods and material for containment 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.

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

Hygiene measures : 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, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.

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

Incompatible materials : Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

PHOSPHORUS FLAME RETARDANT STANDARD MIXTURE UNLABELED 10 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/m ³)	70 mg/m ³ The value in mg/m ³ is approximate.
USA OSHA	OSHA PEL (TWA) (ppm)	40 ppm The value in mg/m ³ is approximate.
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/m ³)	70 mg/m ³ The value in mg/m ³ is approximate.
USA OSHA	OSHA PEL (TWA) (ppm)	40 ppm The value in mg/m ³ is approximate.
TRI-N-BUTYL PHOSPHATE UNLABELED (126-73-8)		
USA OSHA	OSHA PEL (TWA) (ppm)	0.2 ppm

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TRIPHENYL PHOSPHATE UNLABELED (115-86-6)		
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	3 mg/m ³ Remark: Not classifiable as a human carcinogen. Cholinesterase inhibition.
USA OSHA	OSHA PEL (TWA) (mg/m ³)	3 mg/m ³ Remark: Not classifiable as a human carcinogen. Cholinesterase inhibition.

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 : Wear appropriate mask.
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 : 41.05 g/mol
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
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

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Vapors may form explosive mixture with air.

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10.2. Chemical stability

See storage and expiration date on CoA.

10.3. Possibility of hazardous reactions

Highly flammable liquid and vapor.

10.4. Conditions to avoid

Heat. Open flame. Direct sunlight. Sparks. Extremely high or low temperatures.

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

May release flammable gases. Carbon oxides (CO, CO₂). Nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

PHOSPHORUS FLAME RETARDANT STANDARD MIXTURE UNLABELED 10 UG/ML IN ACETONITRILE	
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)	1100.000 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 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
TRIPROPYL PHOSPHATE UNLABELED (513-08-6)	
ATE CLP (oral)	500.000 mg/kg body weight
ATE CLP (dermal)	1100.000 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
TRI-N-BUTYL PHOSPHATE UNLABELED (126-73-8)	
LD50 oral rat	1552 mg/kg
LD50 dermal rabbit	> 3100 mg/kg
LC50 inhalation rat (mg/l)	28000 mg/m ³ 1 h
ATE CLP (oral)	1552.000 mg/kg body weight
ATE CLP (vapors)	28.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
TRIS(2-CHLOROETHYL)PHOSPHATE UNLABELED (115-96-8)	
LD50 oral rat	1150 mg/kg
LD50 dermal rabbit	> 5 mg/kg
LC50 inhalation rat (mg/l)	> 5 mg/l 4 h
ATE CLP (oral)	1150.000 mg/kg body weight
TRIS(1-CHLORO-2-PROPYL)PHOSPHATE UNLABELED (13674-84-5 (Unlabeled))	
LD50 oral rat	≤ 1101 mg/kg

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TRIS(1-CHLORO-2-PROPYL)PHOSPHATE UNLABELED (13674-84-5 (Unlabeled))	
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 7 mg/l male and female - 4 h
ATE CLP (oral)	1101.000 mg/kg body weight

TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE UNLABELED (13674-87-8)	
LD50 oral rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5.22 mg/l 4 h

TRIETHYL PHOSPHATE UNLABELED (78-40-0)	
LD50 oral rat	1165 mg/kg
ATE CLP (oral)	1165.000 mg/kg body weight

TRIPHENYL PHOSPHATE UNLABELED (115-86-6)	
LD50 oral rat	> 20000 mg/kg
LD50 dermal rabbit	> 7900 mg/kg

Skin corrosion/irritation	: Not classified Skin – Rabbit - No skin 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	: Not classified The substance or mixture is not classified as specific target organ toxicant.
Specific target organ toxicity – repeated exposure	: Not classified The substance or mixture is not classified as specific target organ toxicant.
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	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.
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.

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.
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PHOSPHORUS FLAME RETARDANT STANDARD MIXTURE UNLABELED 10 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

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

TRI-N-BUTYL PHOSPHATE UNLABELED (126-73-8)	
LC50 fish 1	8.8 mg/l Carassius auratus (goldfish) - 96 h

PHOSPHORUS FLAME RETARDANT STANDARD MIXTURE UNLABELED 10 UG/ML IN ACETONITRILE

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TRI-N-BUTYL PHOSPHATE UNLABELED (126-73-8)	
EC50 Daphnia 1	3.6 mg/l Daphnia magna (Water flea) - 48 h
ErC50 (algae)	1.1 mg/l Desmodesmus subspicatus (green algae) - 72 h
TRIS(2-CHLOROETHYL)PHOSPHATE UNLABELED (115-96-8)	
EC50 Daphnia 1	170 mg/l Daphnia magna (Water flea) - 48 h
ErC50 (algae)	450 mg/l Pseudokirchneriella subcapitata -72 h
TRIS(1-CHLORO-2-PROPYL)PHOSPHATE UNLABELED (13674-84-5 (Unlabeled))	
LC50 fish 1	51 mg/l Pimephales promelas (fathead minnow) - 96 h
EC50 Daphnia 1	33 mg/l Pseudokirchneriella subcapitata (green algae) - 72 h
ErC50 (algae)	784 mg/l -Sludge treatment - 3 h
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE UNLABELED (13674-87-8)	
LC50 fish 1	1.1 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h
EC50 Daphnia 1	3.8 mg/l Daphnia magna (Water flea) - 48 h
EC50 other aquatic organisms 1	Respiration inhibition EC50 - Sludge Treatment - > 10 mg/l - 3 h
ErC50 (algae)	4.5 mg/l Pseudokirchneriella subcapitata (green algae)
TRIETHYL PHOSPHATE UNLABELED (78-40-0)	
LC50 fish 1	1000 mg/l Pimephales promelas (fathead minnow) - 96 h
EC50 Daphnia 1	330 mg/l Daphnia (water flea) - 96 h
TRIPHENYL PHOSPHATE UNLABELED (115-86-6)	
LC50 fish 1	0.87 mg/l Pimephales promelas (fathead minnow) - 96 h
EC50 Daphnia 1	1 mg/l Daphnia magna (Water flea) - 48 h
ErC50 (algae)	1 mg/l Desmodesmus subspicatus (green algae) - 72 h

12.2. Persistence and degradability

PHOSPHORUS FLAME RETARDANT STANDARD MIXTURE UNLABELED 10 UG/ML IN ACETONITRILE		
Persistence and degradability	Biodegradability	Result: - Readily biodegradable.
ACETONITRILE UNLABELED (75-05-8)		
Persistence and degradability	Biodegradability	Result: - Readily biodegradable.
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE UNLABELED (13674-87-8)		
Persistence and degradability	Biodegradability	aerobic - Exposure time 28 d.

12.3. Bioaccumulative potential

PHOSPHORUS FLAME RETARDANT STANDARD MIXTURE UNLABELED 10 UG/ML IN ACETONITRILE	
Log Pow	-0.34
Bioaccumulative potential	No bioaccumulation is to be expected (log Pow <= 4).
ACETONITRILE UNLABELED (75-05-8)	
Log Pow	-0.34
Bioaccumulative potential	No bioaccumulation is to be expected (log Pow <= 4).
TRIS(2-CHLOROETHYL)PHOSPHATE UNLABELED (115-96-8)	
BCF fish 1	1 mg/l Cyprinus carpio (carp) - 42 d at 25 °C
BCF fish 2	4 mg/l Carassius auratus (goldfish) - 96 h
Bioconcentration factor (BCF REACH)	0.9 Bioconcentration factor range between 0.6 - 0.9
Log Pow	1.7 at 20 °C (68 °F)
TRIS(1-CHLORO-2-PROPYL)PHOSPHATE UNLABELED (13674-84-5 (Unlabeled))	
Log Pow	- 3.04
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE UNLABELED (13674-87-8)	
Bioconcentration factor (BCF REACH)	31-59
Log Pow	3.69 at 20 °C (68 °F)
Bioaccumulative potential	Oryzias latipes - 30 d.
TRIPHENYL PHOSPHATE UNLABELED (115-86-6)	
Log Pow	4.6

12.4. Mobility in soil

PHOSPHORUS FLAME RETARDANT STANDARD MIXTURE UNLABELED 10 UG/ML IN ACETONITRILE	
Ecology - soil	Not expected to absorb on soil.

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ACETONITRILE UNLABELED (75-05-8)

Ecology - soil : Not expected to absorb on soil.

12.5. Results of PBT and vPvB assessment

TRIS(2-CHLOROETHYL)PHOSPHATE UNLABELED (115-96-8)

This substance/mixture does not meet the PBT criteria of REACH, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH, annex XIII

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.

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 / ADN

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) : 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.
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

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

PHOSPHORUS FLAME RETARDANT STANDARD MIXTURE UNLABELED 10 UG/ML IN ACETONITRILE

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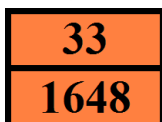
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Hazard labels (ADR) : 3 - Flammable liquids



Orange plates :



Tunnel restriction code (ADR) : D/E

Limited quantities (ADR) : 11

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.

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

PHOSPHORUS FLAME RETARDANT STANDARD MIXTURE UNLABELED 10 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
ACETONITRILE UNLABELED (75-05-8)	
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
TRIPROPYL PHOSPHATE UNLABELED (513-08-6)	
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 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313

PHOSPHORUS FLAME RETARDANT STANDARD MIXTURE UNLABELED 10 UG/ML IN ACETONITRILE

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TRI-N-BUTYL PHOSPHATE UNLABELED (126-73-8)				
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 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313			
TRIS(2-CHLOROETHYL)PHOSPHATE UNLABELED (115-96-8)				
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	Immediate (acute) health hazard Delayed (chronic) health hazard			
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313			
TRIS(1-CHLORO-2-PROPYL)PHOSPHATE UNLABELED (13674-84-5 (Unlabeled))				
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	Immediate (acute) health hazard Delayed (chronic) health hazard			
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313			
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE UNLABELED (13674-87-8)				
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	Delayed (chronic) health hazard			
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313			
TRIETHYL PHOSPHATE UNLABELED (78-40-0)				
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 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313			
TRIPHENYL PHOSPHATE UNLABELED (115-86-6)				
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 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313			
15.2. International regulations				
CANADA				
PHOSPHORUS FLAME RETARDANT STANDARD MIXTURE UNLABELED 10 UG/ML IN ACETONITRILE				
Listed on the Canadian DSL (Domestic Substances List)				
15.2.1. National regulations				
No additional information available				
15.3. US State regulations				
PHOSPHORUS FLAME RETARDANT STANDARD MIXTURE UNLABELED 10 UG/ML IN ACETONITRILE()				
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	RTK - U.S. - Massachusetts - Right To Know List RTK - U.S. - New Jersey - Right to Know Hazardous Substance List RTK - U.S. - Pennsylvania - RTK (Right to Know) List			
ACETONITRILE UNLABELED (75-05-8)				
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	
TRIPROPYL PHOSPHATE UNLABELED (513-08-6)				
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)

PHOSPHORUS FLAME RETARDANT STANDARD MIXTURE UNLABELED 10 UG/ML IN ACETONITRILE

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TRIPROPYL PHOSPHATE UNLABELED (513-08-6)				
No	No	No	No	
TRI-N-BUTYL PHOSPHATE UNLABELED (126-73-8)				
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(2-CHLOROETHYL)PHOSPHATE UNLABELED (115-96-8)				
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	
TRIS(1-CHLORO-2-PROPYL)PHOSPHATE UNLABELED (13674-84-5 (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	
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE UNLABELED (13674-87-8)				
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	
TRIETHYL PHOSPHATE UNLABELED (78-40-0)				
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	
TRIPHENYL PHOSPHATE UNLABELED (115-86-6)				
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 UNLABELED (75-05-8)				
State or local regulations				
RTK - U.S. - Massachusetts - Right To Know List RTK - U.S. - New Jersey - Right to Know Hazardous Substance List RTK - U.S. - Pennsylvania - RTK (Right to Know) List				
TRIPROPYL PHOSPHATE UNLABELED (513-08-6)				
State or local regulations				
RTK - U.S. - Pennsylvania - RTK (Right to Know) List RTK - U.S. - New Jersey - Right to Know Hazardous Substance List				
TRI-N-BUTYL PHOSPHATE UNLABELED (126-73-8)				
State or local regulations				
RTK - U.S. - Massachusetts - Right To Know List RTK - U.S. - New Jersey - Right to Know Hazardous Substance List RTK - U.S. - Pennsylvania - RTK (Right to Know) List				
TRIS(2-CHLOROETHYL)PHOSPHATE UNLABELED (115-96-8)				
State or local regulations				
RTK - U.S. - Pennsylvania - RTK (Right to Know) List RTK - U.S. - New Jersey - Right to Know Hazardous Substance List				

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TRIS(1-CHLORO-2-PROPYL)PHOSPHATE UNLABELED (13674-84-5 (Unlabeled))
State or local regulations
RTK - U.S. - Pennsylvania - RTK (Right to Know) List RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
TRIS(1,3-DICHLORO-2-PROPYL)PHOSPHATE UNLABELED (13674-87-8)
State or local regulations
RTK - U.S. - Pennsylvania - RTK (Right to Know) List RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
TRIETHYL PHOSPHATE UNLABELED (78-40-0)
State or local regulations
RTK - U.S. - Pennsylvania - RTK (Right to Know) List RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
TRIPHENYL PHOSPHATE UNLABELED (115-86-6)
State or local regulations
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List RTK - 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 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Carc. 2	Carcinogenicity Category 2
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Flam. Liq. 2	Flammable liquids Category 2
Repr. 1B	Reproductive toxicity Category 1B
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
H351	Suspected of causing cancer
H360F	May damage fertility.
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
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
R22	Harmful if swallowed
R36	Irritating to eyes
R36/37/38	Irritating to eyes, respiratory system and skin
R36/38	Irritating to eyes and skin
R40	Limited evidence of a carcinogenic effect
R51	Toxic to aquatic organisms
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R60	May impair fertility

PHOSPHORUS FLAME RETARDANT STANDARD MIXTURE UNLABELED 10 UG/ML IN ACETONITRILE

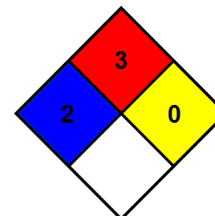
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R61	May cause harm to the unborn child
F	Highly flammable
N	Dangerous for the environment
Xi	Irritant
Xn	Harmful

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