



ACRYLONITRILE (1-13C, 99%) (+0.1% 4-METHOXYPHENOL)

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: 14/01/2011

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Version: 4.1

CLM-109

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

1.1. Product identifier

Product form	: Substance
Substance name	: ACRYLONITRILE (1-13C, 99%) (+0.1% 4-METHOXYPHENOL)
EC Index-No.	: 608-003-00-4 (Unlabeled)
EC-No.	: 203-466-5 (Unlabeled)
CAS-No.	: 91628-87-4
Product code	: CLM-109
Formula	: CH ₂ =CH*CN
Synonyms	: Vinyl cyanide

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. 3 (Oral)	H301
Acute Tox. 3 (Dermal)	H311
Acute Tox. 3 (Inhalation:dust,mist)	H331
Skin Irrit. 2	H315
Eye Dam. 1	H318
Skin Sens. 1	H317
Carc. 1A	H350
Repr. 2	H361
STOT SE 3	H335
Aquatic Chronic 2	H411

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
N; R51/53
T; R23/24/25
Xi; R37/38
R43
Xi; R41
Carc.Cat.1; R45

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Carc.Cat.1; R49
Repr.Cat.3; R62
Repr.Cat.3; R63

Full text of R-phrases: see section 16

GHS-US classification

Flam. Liq. 2	H225
Acute Tox. 3 (Oral)	H301
Acute Tox. 3 (Dermal)	H311
Acute Tox. 3 (Inhalation)	H331
Skin Irrit. 2	H315
Eye Dam. 1	H318
Skin Sens. 1	H317
Carc. 1B	H350
Repr. 2	H361
STOT SE 3	H335
Aquatic Acute 2	H401
Aquatic Chronic 2	H411

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

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 vapour
H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H335 - May cause respiratory irritation
H350 - May cause cancer (in contact with skin, if inhaled, if swallowed)
H361 - Suspected of damaging fertility. Suspected of damaging the unborn child. (in contact with skin, if inhaled, if swallowed)
H411 - Toxic to aquatic life with long lasting effects

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 lighting, ventilating, electrical equipment
P261 - Avoid breathing dust, fume, gas, mist, spray, vapors.
P264 - Wash Both hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.

GHS-US labeling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H225 - Highly flammable liquid and vapour
H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H335 - May cause respiratory irritation

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	H350 - May cause cancer (Dermal, Inhalation, oral)
	H361 - Suspected of damaging fertility or the unborn child (Dermal, oral, Inhalation)
	H401 - Toxic to aquatic life
	H411 - Toxic to aquatic life with long lasting effects
Precautionary statements (GHS-US)	: P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P210 - Keep away from heat, 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 Both hands thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area. P272 - Contaminated work clothing must not be allowed out of the workplace P273 - Avoid release to the environment. P280 - Wear eye protection, face protection, protective clothing, protective gloves. P301+P310 - If swallowed: Immediately call a poison center or doctor 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 P308+P313 - If exposed or concerned: Get medical advice/attention. P310 - Immediately call a poison center or doctor P311 - Call a poison center or doctor P312 - Call a poison center or doctor if you feel unwell P321 - Specific treatment (see Hazard pictograms (CLP) on this label) P330 - Rinse mouth. P332+P313 - If skin irritation occurs: Get medical advice/attention. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P361 - Take off immediately all contaminated clothing. P362 - Take off contaminated clothing and wash before reuse. P362+P364 - Take off contaminated clothing and wash it before reuse. P363 - Wash contaminated clothing before reuse. P370+P378 - In case of fire: Use Alcohol resistant foam, Carbon dioxide, Dry chemical, Water spray to extinguish. P391 - Collect spillage. P403+P233 - Store in a well-ventilated place. Keep container tightly closed. P403+P235 - Store in a well-ventilated place. Keep cool. P405 - Store locked up. P501 - Dispose of contents/container to Comply with applicable regulations

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name	: ACRYLONITRILE (1-13C, 99%) (+0.1% 4-METHOXYPHENOL)
CAS-No.	: 91628-87-4
EC-No.	: 203-466-5 (Unlabeled)
EC Index-No.	: 608-003-00-4 (Unlabeled)

Name	Product identifier	%	Classification according to Directive 67/548/EEC
ACRYLONITRILE (1-13C, 99%)	(CAS-No.) 55757-47-6 (EC-No.) 203-466-5 (Unlabeled) (EC Index-No.) 608-003-00-4 (Unlabeled)	99.9	F; R11 N; R51/53 T; R23/24/25 Xi; R37/38 R43 Xi; R41 Carc.Cat.1; R45 Carc.Cat.1; R49 Repr.Cat.3; R62 Repr.Cat.3; R63

ACRYLONITRILE (1-13C, 99%) (+0.1% 4-METHOXYPHENOL)

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Name	Product identifier	%	Classification according to Directive 67/548/EEC
4-methoxyphenol	(CAS-No.) 150-76-5 (EC-No.) 205-769-8 (EC Index-No.) 604-044-00-7	0.1	Xn; R22 Xi; R36 R43 Repr.Cat.3; R62 Repr.Cat.3; R63 R52/53 N; R51/53
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ACRYLONITRILE (1-13C, 99%)	(CAS-No.) 55757-47-6 (EC-No.) 203-466-5 (Unlabeled) (EC Index-No.) 608-003-00-4 (Unlabeled)	99.9	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:dust,mist), H331 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 1A, H350 Repr. 2, H361 STOT SE 3, H335 Aquatic Chronic 2, H411
4-methoxyphenol	(CAS-No.) 150-76-5 (EC-No.) 205-769-8 (EC Index-No.) 604-044-00-7	0.1	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Skin Sens. 1, H317 Repr. 2, H361fd Aquatic Chronic 3, H412

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

Name : ACRYLONITRILE (1-13C, 99%) (+0.1% 4-METHOXYPHENOL)
CAS-No. : 91628-87-4
EC-No. : 203-466-5 (Unlabeled)
EC Index-No. : 608-003-00-4 (Unlabeled)

Name	Product identifier	%	GHS-US classification
ACRYLONITRILE (1-13C, 99%)	(CAS-No.) 55757-47-6	99.9	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 1B, H350 Repr. 2, H361 STOT SE 3, H335 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
4-methoxyphenol	(CAS-No.) 150-76-5	0.1	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Repr. 2, H361 Aquatic Acute 2, H401 Aquatic Chronic 3, H412

Full text of H-phrases: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

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

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

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

First-aid measures after eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

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

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

- Symptoms/effects after inhalation : Toxic if inhaled. May cause respiratory tract irritation.
Symptoms/effects after skin contact : Toxic if absorbed through skin. Causes skin irritation. May cause allergic skin reaction.
Symptoms/effects after eye contact : Causes serious eye damage.
Symptoms/effects after ingestion : Toxic 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 : Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

- Firefighting instructions : Wear self contained breathing apparatus for fire fighting if necessary.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.
Other information : Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

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

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

- For containment : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.
Hygiene measures : Wash Both hands thoroughly after handling. Wash hands before eating and wash before reuse. When using do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Storage conditions : Store refrigerated (-5 C to 5 C). Protect from light.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ACRYLONITRILE (1-13C, 99%) (+0.1% 4-METHOXYPHENOL) (91628-87-4)

Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	2.00000000 ppm Central Nervous System impairment. Lower Respiratory Tract irritation. Confirmed animal carcinogen with unknown relevance to humans. Danger of cutaneous absorption. USA. ACGIH Threshold Limit Values (TLV)
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ACRYLONITRILE (1-13C, 99%) (+0.1% 4-METHOXYPHENOL) (91628-87-4)		
USA NIOSH	NIOSH REL (TWA) (ppm)	1 ppm Potential Occupational Carcinogen. See Appendix A. Potential for dermal absorption. 15 minute ceiling value. USA. NIOSH Recommended Exposure Limits
USA NIOSH	NIOSH REL (ceiling) (ppm)	10 ppm Potential Occupational Carcinogen. See Appendix A. Potential for dermal absorption. 15 minute ceiling value. USA. NIOSH Recommended Exposure Limits
USA OSHA	Remark (OSHA)	Substance listed; for more information see OSHA document 1910.1045. See 1910.1045.
4-methoxyphenol (150-76-5)		
Belgium	Limit value (mg/m ³)	5 mg/m ³ (4-Méthoxyphénol; Belgium; Time-weighted average exposure limit 8 h)
France	VME (mg/m ³)	5 mg/m ³ (4-Méthoxyphénol; France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative)
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³ (4-Methoxyphenol; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³ USA. NIOSH Recommended Exposure Limits.
USA OSHA	OSHA PEL (Ceiling) (mg/m ³)	5 mg/m ³ California permissible exposure limits for chemical contaminants (Title 8, Article 107)
ACRYLONITRILE (1-13C, 99%) (55757-47-6)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	2.00000000 ppm Central Nervous System impairment. Lower Respiratory Tract irritation. Confirmed animal carcinogen with unknown relevance to humans. Danger of cutaneous absorption. USA. ACGIH Threshold Limit Values (TLV)
USA NIOSH	NIOSH REL (TWA) (ppm)	1 ppm Potential Occupational Carcinogen. See Appendix A. Potential for dermal absorption. 15 minute ceiling value. USA. NIOSH Recommended Exposure Limits
USA NIOSH	NIOSH REL (ceiling) (ppm)	10 ppm Potential Occupational Carcinogen. See Appendix A. Potential for dermal absorption. 15 minute ceiling value. USA. NIOSH Recommended Exposure Limits
USA OSHA	Remark (OSHA)	Substance listed; for more information see OSHA document 1910.1045. See 1910.1045.

8.2. Exposure controls

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

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



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

Hand protection : Wear suitable protective clothing and gloves.

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

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

Respiratory protection : Wear self contained breathing apparatus for fire fighting if necessary.

Environmental exposure controls : Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear, colorless liquid.
Molecular mass	: 54.06 g/mol (Labeled)
Color	: Colorless.
Odor	: No data available

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Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: -83 °C (-117 °F) - lit.
Freezing point	: No data available
Boiling point	: 77 °C (171 °F) - lit.
Flash point	: -5 °C (23 °F) - closed cup
Auto-ignition temperature	: 481 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: 115 hPa (86 mmHg) at 20 °C (68 °F)
Relative vapor density at 20 °C	: 1.83 - (Air = 1.0)
Relative density	: No data available
Specific gravity / density	: 0.806 g/ml
Solubility	: Water: Soluble
Log Pow	: 0.25
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	: 3 - 17 vol % (V)

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

One year after receipt of order if stored as stated in "Storage" section. Re-QC after one year.

10.3. Possibility of hazardous reactions

Vapours may form explosive mixture with air.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

Oxidizing agents. copper.

10.6. Hazardous decomposition products

Carbon oxides, nitrogen oxide (NOx).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin. Inhalation:dust,mist: Toxic if inhaled.

ACRYLONITRILE (1-13C, 99%) (+0.1% 4-METHOXYPHENOL) (91628-87-4)	
LD50 oral rat	81 mg/kg
LD50 dermal rabbit	226 mg/kg
ATE CLP (oral)	78.000 mg/kg body weight
ATE CLP (dermal)	63.000 mg/kg body weight
ATE CLP (dust, mist)	0.500 mg/l/4h
4-methoxyphenol (150-76-5)	
LD50 oral rat	1600 mg/kg (Rat)
LD50 dermal rat	> 2000 mg/kg (Directive 67/548/EEC, Annex V, B.3.)
ATE CLP (oral)	1600.000 mg/kg body weight
ACRYLONITRILE (1-13C, 99%) (55757-47-6)	
LD50 oral rat	81 mg/kg
LD50 dermal rabbit	226 mg/kg

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ACRYLONITRILE (1-13C, 99%) (55757-47-6)	
ATE CLP (oral)	78.000 mg/kg body weight
ATE CLP (dermal)	63.000 mg/kg body weight
ATE CLP (dust, mist)	0.500 mg/l/4h

Skin corrosion/irritation	: Skin - Rabbit Result: Skin irritation. (OECD Test Guideline 404)
Serious eye damage/irritation	: Eyes - Rabbit Result: Risk of serious damage to eyes.
Respiratory or skin sensitization	: Maximisation Test - Guinea pig. Result: May cause sensitisation by skin contact. (OECD Test Guideline 406)
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Possible human carcinogen

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Additional information	OSHA specifically regulated carcinogen.

ACRYLONITRILE (1-13C, 99%) (55757-47-6)	
Additional information	OSHA specifically regulated carcinogen.

Reproductive toxicity	: Suspected human reproductive toxicant.
Specific target organ toxicity – single exposure	: May cause respiratory irritation.
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin Cough, Shortness of breath, Nausea. Stomach - Irregularities - Based on Human Evidence.
IARC group	: 2B
Symptoms/effects after inhalation	: Toxic if inhaled. May cause respiratory tract irritation.
Symptoms/effects after skin contact	: Toxic if absorbed through skin. Causes skin irritation. May cause allergic skin reaction.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: Toxic if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

ACRYLONITRILE (1-13C, 99%) (+0.1% 4-METHOXYPHENOL) (91628-87-4)	
EC50 Daphnia 1	7.4 - 10 Daphnia magna (Water flea) - 48 h

4-methoxyphenol (150-76-5)	
LC50 fish 1	28.5 mg/l (LC50; 96 h; Salmo gairdneri)
EC50 Daphnia 1	3 mg/l (EC50; 48 h)
ErC50 (algae)	54.7 mg/l Pseudokirchneriella subcapitata (green algae) - 72 h (OECD Test Guideline 201)
NOEC (chronic)	2.96 mg/l Pseudokirchneriella subcapitata (green algae) - 72 d (OECD Test Guideline 201)
Threshold limit algae 2	4.4 mg/l (EC0)

ACRYLONITRILE (1-13C, 99%) (55757-47-6)	
EC50 Daphnia 1	7.4 - 10 mg/l Daphnia magna (Water flea) - 48 h

12.2. Persistence and degradability

ACRYLONITRILE (1-13C, 99%) (+0.1% 4-METHOXYPHENOL) (91628-87-4)	
Persistence and degradability	Biotic/Aerobic. - Exposure time 28 d.

4-methoxyphenol (150-76-5)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Photodegradation in the air.
BOD (% of ThOD)	0.57
Biodegradation	86 % - Readily biodegradable (OECD Test Guideline 301C)

ACRYLONITRILE (1-13C, 99%) (55757-47-6)	
Persistence and degradability	Biotic/Aerobic. - Exposure time 28 d.

12.3. Bioaccumulative potential

ACRYLONITRILE (1-13C, 99%) (+0.1% 4-METHOXYPHENOL) (91628-87-4)	
BCF fish 1	9.94 ug/l Lepomis macrochirus - 14 d
Bioconcentration factor (BCF REACH)	48
Log Pow	0.25

ACRYLONITRILE (1-13C, 99%) (+0.1% 4-METHOXYPHENOL)

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4-methoxyphenol (150-76-5)	
Log Pow	1.34 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
ACRYLONITRILE (1-13C, 99%) (55757-47-6)	
BCF fish 1	9.94 ug/l Lepomis macrochirus - 14 d
Bioconcentration factor (BCF REACH)	48
Log Pow	0.25

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other adverse effects : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and local environmental control regulations.

Product/Packaging disposal recommendations : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Ecology - waste materials : Dispose of as unused product.

SECTION 14: Transport information

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

14.1. UN number

UN-No.(DOT) : 1093
DOT NA no. UN1093

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Acrylonitrile, stabilized
Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT) : 3 - Flammable liquid
6.1 - Poison



Packing group (DOT) : I - Great Danger

DOT Special Provisions (49 CFR 172.102) : B9 - Bottom outlets are not authorized.
T14 - 6 mm Prohibited 178.275(g)(3).
TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.
TP13 - Self-contained breathing apparatus must be provided when this hazardous material is transported by sea.

DOT Packaging Exceptions (49 CFR 173.xxx) : None
DOT Packaging Non Bulk (49 CFR 173.xxx) : 201
DOT Packaging Bulk (49 CFR 173.xxx) : 243

14.3. Additional information

Other information : No supplementary information available.

Overland transport

Packing group (ADR) : I

ACRYLONITRILE (1-13C, 99%) (+0.1% 4-METHOXYPHENOL)

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Class (ADR) : 3 - Flammable liquid
Hazard identification number (Kemler No.) : 336
Classification code (ADR) : FT1
Hazard labels (ADR) : 3 - Flammable liquids
6.1 - Toxic substances



Orange plates :

Tunnel restriction code (ADR) : C/E
Limited quantities (ADR) : 0
EAC : •3WE
APP : A(fl)
Excepted quantities (ADR) : E0

Transport by sea

DOT Vessel Stowage Location : E - 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, but is prohibited from carriage on passenger vessels in which the limiting number of passengers is exceeded.
DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"
MFAG-No : 131P

Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : Forbidden
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 30 L
Civil Aeronautics Law : Flammable liquids

14.4. Environmental hazards

Dangerous for the environment :

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

ACRYLONITRILE (1-13C, 99%) (+0.1% 4-METHOXYPHENOL) (91628-87-4)

Subject to reporting requirements of United States SARA Section 313
Listed on the United States SARA Section 302

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Fire hazard Delayed (chronic) health hazard
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4-methoxyphenol (150-76-5)

SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Immediate (acute) health hazard
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ACRYLONITRILE (1-13C, 99%) (55757-47-6)

Subject to reporting requirements of United States SARA Section 313
Listed on the United States SARA Section 302

ACRYLONITRILE (1-13C, 99%) (+0.1% 4-METHOXYPHENOL)

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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

ACRYLONITRILE (1-13C, 99%) (55757-47-6)

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Fire hazard Delayed (chronic) health hazard
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15.2. International regulations

CANADA

No additional information available

15.2.1. National regulations

No additional information available

15.3. US State regulations

ACRYLONITRILE (1-13C, 99%) (+0.1% 4-METHOXYPHENOL)(91628-87-4)

U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
State or local regulations	U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List WARNING! This product contains a chemical known by the state of California to cause cancer.

4-methoxyphenol (150-76-5)

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	

ACRYLONITRILE (1-13C, 99%) (55757-47-6)

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	

4-methoxyphenol (150-76-5)

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
This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

ACRYLONITRILE (1-13C, 99%) (55757-47-6)

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
WARNING! This product contains a chemical known by the state of California to cause cancer.

SECTION 16: Other information

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

Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3

ACRYLONITRILE (1-13C, 99%) (+0.1% 4-METHOXYPHENOL)

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Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Carc. 1A	Carcinogenicity Category 1A
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Flam. Liq. 2	Flammable liquids Category 2
Repr. 2	Reproductive toxicity Category 2
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization, Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapour
H301	Toxic if swallowed
H302	Harmful if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H331	Toxic if inhaled
H335	May cause respiratory irritation
H350	May cause cancer
H361	Suspected of damaging fertility or the unborn child
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
R11	Highly flammable
R22	Harmful if swallowed
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed
R36	Irritating to eyes
R37/38	Irritating to respiratory system and skin
R41	Risk of serious damage to eyes
R43	May cause sensitization by skin contact
R45	May cause cancer
R49	May cause cancer by inhalation
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R62	Possible risk of impaired fertility
R63	Possible risk of harm to the unborn child
F	Highly flammable
N	Dangerous for the environment
T	Toxic
Xi	Irritant
Xn	Harmful

NFPA health hazard

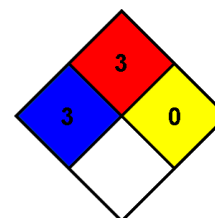
: 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard

: 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA reactivity

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



Hazard Rating

Health

: 2 Moderate Hazard - Temporary or minor injury may occur

Flammability

: 3 Serious Hazard

Physical

: 0 Minimal Hazard

CIL Substance 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