

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 02/12/2018

Reviewed on 02/12/2018

* 1 Identification

- **Product Identifier**
- **Trade name: Carbamates Internal Standard**
- **Product Number:** 1700-0185, 1700-0195
- **Relevant identified uses of the substance or mixture and uses advised against:**
No further relevant information available.
- **Product Description:** Internal standard for carbamates analysis
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
Pickering Laboratories, Inc.
1280 Space Park Way
Mountain View, CA 94043
Phone: (650) 694-6700
Fax: (650) 968-0749
www.pickeringlabs.com
support@pickeringlabs.com
- **Emergency telephone number:**
Clean Harbors Environmental Services
1-800-645-8265

2 Hazard(s) Identification

- **Classification of the substance or mixture:**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS07

Acute Tox. 4 H312 Harmful in contact with skin.
Acute Tox. 4 H332 Harmful if inhaled.
Eye Irrit. 2A H319 Causes serious eye irritation.

- **Label elements:**

- **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms:**



GHS02 GHS07

- **Signal word:** Danger

- **Hazard-determining components of labeling:**

acetonitrile

- **Hazard statements:**

H225 Highly flammable liquid and vapor.
H312+H332 Harmful in contact with skin or if inhaled.
H319 Causes serious eye irritation.

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 02/12/2018

Reviewed on 02/12/2018

Trade name: Carbamates Internal Standard

Precautionary statements:

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P233 Keep container tightly closed.
- P240 Ground/bond container and receiving equipment.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P264 Wash thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- 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 poison center/doctor if you feel unwell.
- P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Unknown acute toxicity:

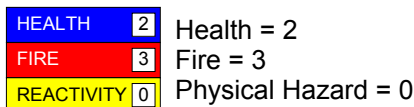
This value refers to knowledge of known, established toxicological or ecotoxicological values.

Classification system: NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

NFPA ratings (scale 0 - 4)



HMIS-ratings (scale 0 - 4)



Hazard(s) not otherwise classified (HNOC): None

3 Composition/Information on Ingredients

Chemical characterization: Mixtures

Description: Mixture of substances listed below with non-hazardous additions.

Dangerous Components:

CAS: 75-05-8 RTECS: AL 7700000	acetonitrile ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2A, H319	>99.5%
CAS: 672-99-1	BDMC (4-Bromo-3,5-dimethylphenyl N -methylcarbamate) ⚠ Acute Tox. 3, H301; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	<0.1%

(Contd. on page 3)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 02/12/2018

Reviewed on 02/12/2018

Trade name: Carbamates Internal Standard

· **Additional information:**

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures

· **Description of first aid measures:**

· **After inhalation:** Not anticipated under normal use.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.
If skin irritation occurs, consult a doctor.

· **After eye contact:**

Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.

· **After swallowing:**

Rinse mouth with water ensuring that rinse is not swallowed. Drink 2 glasses of water to dilute and induce vomiting by touching finger to the back of the victims throat. Get medical assistance immediately.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed:** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

5 Fire-Fighting Measures

· **Extinguishing media:**

· **Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **Special hazards arising from the substance or mixture:**

Combustible liquid. Vapors can travel to a source of ignition and flash back.
Explosive mixtures may occur at temperatures at or above flashpoint.

· **Advice for firefighters:**

· **Protective equipment:**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

· **Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:**

Dilute with plenty of water.
Do not allow to enter sewers/surface or ground water.

· **Methods and material for containment and cleaning up:**

Ensure adequate ventilation.
Use neutralizing agent.
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.

· **Reference to other sections:**

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

· **Protective Action Criteria for Chemicals**

· PAC-1:	
75-05-8 acetonitrile	13 ppm

(Contd. on page 4)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 02/12/2018

Reviewed on 02/12/2018

Trade name: Carbamates Internal Standard

· PAC-2:		
75-05-8	acetonitrile	50 ppm
· PAC-3:		
75-05-8	acetonitrile	150 ppm

7 Handling and Storage

- **Handling**
- **Precautions for safe handling:**
 Ensure good ventilation/exhaustion at the workplace.
 Avoid contact with skin, eyes and clothing
 Avoid breathing fumes.
 Use personal protection equipment as outlined in section 8.
- **Information about protection against explosions and fires:**
 Keep ignition sources away - Do not smoke.
 Protect from heat.
 Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities:**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
 Keep away from any sources of heat or flame.
 Store in dry conditions at a temperature range of 8°C - 25°C.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
 Keep receptacle tightly sealed.
 Protect from heat and direct sunlight.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
- **Components with occupational exposure limits:**
 The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
 At this time, the remaining constituent has no known exposure limits.

75-05-8 acetonitrile	
PEL	Long-term value: 70 mg/m ³ , 40 ppm
REL	Long-term value: 34 mg/m ³ , 20 ppm
TLV	Long-term value: 34 mg/m ³ , 20 ppm
	Skin

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 Use adequate exhaust ventilation to prevent inhalation of product vapors.
 Do not eat or drink while handling product.
 Avoid contact with the eyes and skin.
 Wash hands before breaks and at the end of work.
 Immediately remove all soiled and contaminated clothing and wash before reuse.

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 02/12/2018

Reviewed on 02/12/2018

Trade name: Carbamates Internal Standard

· **Breathing equipment:**

Respiratory protection is not required unless handling of the material produces nuisance airborne concentrations.

· **Protection of hands:**



Protective gloves

· **Material of gloves:** Rubber, latex or vinyl.

· **Penetration time of glove material:**

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Lab coat

· **Limitation and supervision of exposure into the environment:**

Keep away from drains, surface and ground waters.
Avoid release into the environment.

9 Physical and Chemical Properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Liquid
Color:	Colorless
Odor:	Slight
Odor threshold:	Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

Melting point/Melting range:	Not determined.
Boiling point/Boiling range:	≥81 °C (≥177.8 °F)

· **Flash point:** ≥5 °C (≥41 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** ≥525 °C (≥977 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not self-igniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

Lower:	≥4.4 Vol %
Upper:	≤16 Vol %

· **Vapor pressure @ 20 °C (68 °F):** ≤97 hPa (≤72.8 mm Hg)

(Contd. on page 6)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 02/12/2018

Reviewed on 02/12/2018

Trade name: Carbamates Internal Standard

- **Density:**
 - Relative density:** Not determined.
 - Vapor density:** Not determined.
 - Evaporation rate:** Not determined.
- **Solubility in / Miscibility with:**
 - Water:** Not determined.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Solvent content:**
 - VOC content:** 0.00 %
 - Solids content:** 0.1 %
- **Other information:** No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** Carbon oxides (COx), Nitrogen oxides (NOx)
- **Possibility of hazardous reactions:** Vapours may form explosive mixture with air
- **Conditions to avoid:** Heat, flame and ignition sources.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
Strong bases, Bases, Oxidizing agents, Alkali metals, Metals, Reducing agents, Alcohols, Acids, Exothermic in contact with water, Reacts violently with:, Aluminum, Epoxides

11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**

LD/LC50 values that are relevant for classification:		
75-05-8 acetonitrile		
Oral	LD50	2,730 mg/kg (Rat)
Dermal	LD50	1,250 mg/kg (Rabbit)

- **Primary irritant effect:**
- **On the skin:** Mild irritant effect.
- **On the eye:** Irritating effect.
- **Additional toxicological information:** Harmful
- **Carcinogenic categories:**

IARC (International Agency for Research on Cancer):
None of the ingredients are listed.

NTP (National Toxicology Program):
None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration):
None of the ingredients are listed.

(Contd. on page 7)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 02/12/2018

Reviewed on 02/12/2018

Trade name: Carbamates Internal Standard

12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:**
Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

- **Waste treatment methods:**
- **Recommendation:**
Do not allow product to reach sewage system.
This product may be mixed with a combustible solvent and burned in a chemical incinerator equipped with an after burner and scrubber. This product can also be sent to an EPA approved waste disposal facility.
Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport Information

- **UN-Number:**
- **DOT, ADR/ADN, IMDG, IATA** UN1993
- **UN proper shipping name:**
- **DOT** Flammable liquids, n.o.s. (Acetonitrile)
- **ADR/ADN** UN1993 Flammable liquids, n.o.s. (Acetonitrile)
- **IMDG, IATA** FLAMMABLE LIQUID, N.O.S. (ACETONITRILE)
- **Transport hazard class(es):**
- **DOT**



- **Class:** 3 Flammable liquids

(Contd. on page 8)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 02/12/2018

Reviewed on 02/12/2018

Trade name: Carbamates Internal Standard

· **Label:** 3

· ADR/ADN



· **Class:** 3 (F1) Flammable liquids
· **Label:** 3

· IMDG, IATA



· **Class:** 3 Flammable liquids
· **Label:** 3
· **Packing group:**
· **DOT, ADR/ADN, IMDG, IATA** II
· **Environmental hazards:** Not applicable.
· **Special precautions for user:** Warning: Flammable liquids
· **Danger code (Kemler):** 33
· **EMS Number:** F-E,S-E
· **Stowage Category** B
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
· **Transport/Additional information:**
· **DOT**
· **Quantity limitations:** On passenger aircraft/rail: 5 L
On cargo aircraft only: 60 L

· ADR/ADN

· **Excepted quantities (EQ):** Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

· IMDG

· **Limited quantities (LQ):** 1L
· **Excepted quantities (EQ):** Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
· **UN "Model Regulation":** UN 1993 FLAMMABLE LIQUIDS, N.O.S. (ACETONITRILE), 3, II

15 Regulatory Information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
· **SARA (Superfund Amendments and Reauthorization):**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

75-05-8 acetonitrile

(Contd. on page 9)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 02/12/2018

Reviewed on 02/12/2018

Trade name: Carbamates Internal Standard

· TSCA (Toxic Substances Control Act):		
75-05-8	acetonitrile	
· TSCA new (21st Century Act) (Substances not listed)		
672-99-1	BDMC (4-Bromo-3,5-dimethylphenyl N -methylcarbamate)	
· California Proposition 65:		
· Chemicals known to cause cancer:		
None of the ingredients are listed.		
· Chemicals known to cause reproductive toxicity for females:		
None of the ingredients are listed.		
· Chemicals known to cause reproductive toxicity for males:		
None of the ingredients are listed.		
· Chemicals known to cause developmental toxicity:		
None of the ingredients are listed.		
· New Jersey Right-to-Know List:		
75-05-8	acetonitrile	
· New Jersey Special Hazardous Substance List:		
75-05-8	acetonitrile	F3
· Pennsylvania Right-to-Know List:		
75-05-8	acetonitrile	
· Pennsylvania Special Hazardous Substance List:		
75-05-8	acetonitrile	E
· Carcinogenic categories:		
· EPA (Environmental Protection Agency):		
75-05-8	acetonitrile	CBD, D
· TLV (Threshold Limit Value established by ACGIH):		
75-05-8	acetonitrile	A4
· NIOSH-Ca (National Institute for Occupational Safety and Health):		
None of the ingredients are listed.		

· **GHS label elements**
The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms:**



GHS02 GHS07

· **Signal word:** Danger

· **Hazard-determining components of labeling:**

acetonitrile

· **Hazard statements:**

- H225 Highly flammable liquid and vapor.
- H312+H332 Harmful in contact with skin or if inhaled.
- H319 Causes serious eye irritation.

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 02/12/2018

Reviewed on 02/12/2018

Trade name: Carbamates Internal Standard

· Precautionary statements:

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P233 Keep container tightly closed.
- P240 Ground/bond container and receiving equipment.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P264 Wash thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- 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 poison center/doctor if you feel unwell.
- P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· National regulations:

None of the ingredients are listed.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· Date of preparation / last revision: 02/12/2018 / 2

· Abbreviations and acronyms:

- ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- ACGIH: American Conference of Governmental Industrial Hygienists
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety and Health
- OSHA: Occupational Safety & Health Administration
- TLV: Threshold Limit Value
- PEL: Permissible Exposure Limit

(Contd. on page 11)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 02/12/2018

Reviewed on 02/12/2018

Trade name: Carbamates Internal Standard

REL: Recommended Exposure Limit

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 3: Acute toxicity – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· *** Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106