

Safety Data Sheet (SDS)

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

Issue date 05/10/2015

Reviewed on 05/10/2015

1 Identification

- **Product identifier**
- **Trade name:** acetonitrile
- **CAS Number:**
75-05-8
- **EC number:**
200-835-2
- **Index number:**
608-001-00-3
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
NuGeneration Technologies, LLC (dba NuGenTec)
1155 Park Avenue, Emeryville, CA 94608
salesteam@nugentec.com www.nugentec.com
888-996-8436 or 707-820-4080 for product information
- **Emergency telephone number:**
PERS Emergency Response: Domestic and Canada - 1-800-633-8253, International 1-801-629-0667

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 H302 Harmful if swallowed.
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 statements**
Highly flammable liquid and vapor.

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Harmful if swallowed, in contact with skin or if inhaled.

Causes serious eye irritation.

• **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Use explosion-proof electrical/ventilating/lighting/equipment.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves / eye protection / face protection.

Wear protective gloves / protective clothing.

Wear eye protection / face protection.

Ground/bond container and receiving equipment.

Keep container tightly closed.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

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

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If swallowed: Call a poison center/doctor if you feel unwell.

Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

If eye irritation persists: Get medical advice/attention.

Rinse mouth.

In case of fire: Use for extinction: CO2, powder or water spray.

Take off contaminated clothing and wash it before reuse.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

• **Classification system:**

• **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 0

• **HMIS-ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 0

• **Hazard(s) not otherwise classified (HNOC):** None known

3 Composition/information on ingredients

• **Chemical characterization: Substances**

• **CAS No. Description**

75-05-8 acetonitrile

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- **EC number:** 200-835-2
- **Index number:** 608-001-00-3

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Consult doctor if symptoms persist.
In case of unconsciousness, place patient securely on side position for transportation.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
Rinse opened eye for at least 15 minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Immediately call a doctor.
- **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** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:**
Mouth respiratory protective device.
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:**
Absorb with liquid-binding material (ie. sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.

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Dispose of the collected material according to regulations.

• **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.

7 Handling and storage

• **Handling:**

• **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.

• **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

• **Conditions for safe storage, including any incompatibilities**

• **Storage:**

• **Requirements to be met by storerooms and receptacles:** Store in a cool location.

• **Information about storage in one common storage facility:** Not required.

• **Further information about storage conditions:**

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

• **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:**

75-05-8 acetonitrile

PEL Long-term value: 70 mg/m³, 40 ppm

REL Long-term value: 34 mg/m³, 20 ppm

TLV Long-term value: 34 mg/m³, 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:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing and wash before reuse.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

• **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure, use respiratory protective device that is independent of circulating air.

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- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Select glove material based on penetration times, rates of diffusion and degradation.

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **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

9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form: Gel

Color: Colorless

- **Odor:** Aromatic

- **Odor threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range: -46 °C (-51 °F)

Boiling point/Boiling range: 81 °C (178 °F)

- **Flash point:** 5 °C (41 °F)

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

- **Ignition temperature:** 525 °C (977 °F)

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Not determined.

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

- **Explosion limits:**

Lower: 4.4 Vol %

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- Upper:** 16 Vol %
- **Vapor pressure @ 20 °C (68 °F):** 97 hPa (73 mm Hg)
- **Density @ 20 °C (68 °F):** 0.7822 g/cm³ (6.527 lbs/gal)
- **Relative density** Not determined.
- **Vapor density** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic @ 20 °C (68 °F):** 0.39 mPas
 - Kinematic:** Not determined.
- **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:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Heat, flame and ignition sources.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**

Oral	LD50	2730 mg/kg (rat)
Dermal	LD50	1250 mg/kg (rabbit)
- **Primary irritant effect:**
- **on the skin:** No irritating effect.
- **on the eye:** Irritating effect. Causes serious eye irritation.
- **Additional toxicological information:**
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)**
- **NTP (National Toxicology Program)** Substance is not listed.

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- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **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:**
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:** Recycle or dispose with household trash.
- **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, IMDG, IATA** UN1648
- **UN proper shipping name**
- **DOT** Acetonitrile
- **ADR** UN1648 Acetonitrile
- **IMDG, IATA** ACETONITRILE
- **Transport hazard class(es)**
- **DOT**



- **Class** 3 Flammable liquids

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· **Label** 3

· **ADR**



· **Class** 3 (F1) Flammable liquids

· **Label** 3

· **IMDG, IATA**



· **Class** 3 Flammable liquids

· **Label** 3

· **Packing group**

· **DOT, ADR, IMDG, IATA** II

· **Environmental hazards:** Not applicable.

· **Special precautions for user** Warning: Flammable liquids

· **Danger code (Kemler):** 33

· **EMS Number:** F-E,S-D

· **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

· **Hazardous substance:** 5000 lbs, 2270 kg

· **ADR**

· **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":** UN1648, Acetonitrile, 3, II

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Sara**

· **Section 355 (extremely hazardous substances):** Substance is not listed.

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- **Section 313 (Specific toxic chemical listings):** Substance is listed.
- **TSCA (Toxic Substances Control Act):** Substance is listed.
- **California Proposition 65**
- **Chemicals known to cause cancer:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
- **Chemicals known to cause developmental toxicity:** Substance is not listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

75-05-8	acetonitrile	CBD, D
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· **TLV (Threshold Limit Value established by ACGIH)**

75-05-8	acetonitrile	A4
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· **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not 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 statements**

Highly flammable liquid and vapor.
Harmful if swallowed, in contact with skin or if inhaled.
Causes serious eye irritation.

· **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Use explosion-proof electrical/ventilating/lighting/equipment.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Wear protective gloves / eye protection / face protection.
Wear protective gloves / protective clothing.
Wear eye protection / face protection.
Ground/bond container and receiving equipment.
Keep container tightly closed.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If swallowed: Call a poison center/doctor if you feel unwell.
Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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If eye irritation persists: Get medical advice/attention.

Rinse mouth.

In case of fire: Use for extinction: CO₂, powder or water spray.

Take off contaminated clothing and wash it before reuse.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- **National regulations:** Non-Regulated Material
- **State Right to Know** 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** 05/10/2015 / 1

- **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

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Acute Tox. 4: Acute toxicity, Hazard Category 4

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

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

SDS created by MSDS Authoring Services www.msdsauthoring.com (877) 204-9106