

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product name: **ACETONITRILE**
Supplier: **LABSCAN LIMITED,
T24-26 STILLORGAN INDUSTRIAL PARK, STILLORGAN,
CO. DUBLIN, IRELAND.**
Emergency telephone number: **+353 1 295 2684** Fax No: **+353 1 295 2685**

2. COMPOSITION/INFORMATION ON INGREDIENTS

Identification of the preparation

Chemical Name	CAS-No	EEC-No	Class	Weight %
ACETONITRILE	75-05-8	608-001-00-3	F R11; Xn R20/21/22 R36	100

3. HAZARDS IDENTIFICATION

Most important hazards: Highly flammable.
Harmful by inhalation, in contact with skin and if swallowed.

Specific hazards Liquid causes severe inflammation of conjunctiva and may cause severe damage of the cornea.
Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.
Effects due to ingestion may include: vomiting, difficulty in breathing, convulsions, unconsciousness,
Effects of breathing high concentrations of vapour may include: irritation of respiratory system, nausea, vomiting, convulsions, dizziness, unconsciousness.

4. FIRST AID MEASURES

General advice: Show this safety data sheet to the doctor in attendance.

Inhalation: Move to fresh air in case of accidental inhalation of vapours. Keep patient warm. In case of shortness of breath, give oxygen. Apply artificial respiration only if patient is not breathing or under medical supervision. No artificial aspiration mouth-to-mouth or mouth to nose. Use suitable instruments/apparatus.

Skin contact: Remove contaminated clothing and wash affected skin with soap and water. Obtain medical attention. If signs of poisoning appear, treat as for inhalation.
Wash contaminated clothing before re-use. Contaminated combustible material, e.g. clothing ignites more readily and burns fiercely.

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Eye contact:	If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes. Obtain medical attention.
Ingestion:	Rinse mouth, Induce repeated vomiting. Keep patient warm. In case of shortness of breath, give oxygen. Apply artificial respiration only if patient is not breathing or under medical supervision. No artificial aspiration mouth-to-mouth or mouth to nose. Use suitable instruments/apparatus. Obtain medical attention. Never give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

.Extinguish with carbon dioxide, dry chemical, foam or waterspray

Extinguishing media which must not be used for safety reasons:

Do not use a solid water stream as it may scatter and spread fire.

Specific hazards:

Fire will produce dense black smoke containing hazardous combustion products (see heading 10). Nitrogen oxides, hydrogen cyanides may develop.. Risk of explosion if heated under confinement. The vapour is invisible, heavier than air and spreads along ground. Flash back possible over considerable distance.

Special protective equipment for firefighters:

Wear self-contained breathing apparatus and protective suit.

Specific methods:

Water mist may be used to cool closed containers. Standard procedure for chemical fires.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Evacuate personnel to safe areas. Remove all sources of ignition. Wear self-contained breathing apparatus and protective suit. Vapours may form explosive mixture with air. Keep people away from and upwind of spill/leak.

Environmental precautions:

Contain or absorb leaking liquid with sand or earth, Consult an expert. Prevent liquid entering sewers, basements and workpits.

Methods for cleaning up:

Spillage: May react with combustible substances creating fire or explosion hazard and formation of toxic fumes. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Prevent liquid entering sewers, basements and workpits; vapour may create explosive atmosphere. Transfer to covered steel drums. Dispose of promptly.

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7. HANDLING AND STORAGE

- Handling:** Keep container tightly closed. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors)
Use only in well-ventilated areas. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Always have on hand a cyanide first-aid kit, together with proper instructions.
- Storage:** Keep container tightly closed in a dry and well-ventilated place. Keep at temperatures between +15 and +25 °C.
Keep away from heat and sources of ignition. Store in original container.
Electrical equipment should be protected to the appropriate standard.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name:	National occupational exposure limits:
ACETONITRILE	EH40:OES 40ppm(68mg/m ³) 8h TWA EH40:OES 60ppm(102mg/m ³)15mins TWA.

Engineering measures to reduce exposure

The product should only be used in areas from which all naked lights and other sources of ignition have been excluded

Personal protection equipment:

- **Respiratory protection:** In case of insufficient ventilation wear suitable respiratory equipment.
- **Hand protection:** The material should comply with 89/686/EEC and EN374.
- **Eye protection:** Goggles giving complete protection to eyes.
- **Skin and body protection:** Rubber or plastic boots, Chemical resistant apron / complete suit protecting against chemicals

Hygiene measures:

Ventilation hoods and fans required when working with organic solvents or in hot melt applications.
Keep working clothes separately. Keep away from food, drink and animal feeding stuffs.

9. PHYSICAL AND CHEMICAL PROPERTIES

Formula:	CH₃CN
Form:	liquid,
Colour:	colourless,
Odour:	pungent
pH:	(°C) no data available (g/l H ₂ O)
Boiling point/range:	81.6 °C
Melting point/range:	-45.7 °C
Decomposition temperature:	no data available °C

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Flash point:	2.0 c.c.	°C
Autoignition temperature:	524	°C
Flammability (solid, gas):	highly flammable	
Explosive properties:		
Explosion limits:	- lower 3.0	vol. %
	- upper 17.0	vol. %
Oxidizing properties:	no data available	
Vapour pressure:	(20 °C) 97	hPa
Relative density:	(20 °C) >= 0.782 g/ml <=	
Bulk density:	786	kg/m ³
Solubility:		
Water solubility	(20 °C) completely soluble	g/l)
Solubility in other solvents		
Partition coefficient (n-octanol/water)	no data available	
Viscosity:	(25 °C) 0.316	mPa.s

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions
Conditions to avoid:	Take precautionary measures against static discharges. Decomposes on heating
Materials to avoid:	strong oxidizing agents, perchlorates, perchloric acid, nitric acid, fuming and concentrated sulphuric acid, other acids and cyanide complexes. Unsuitable working materials: plastics and rubber.
Hazardous decomposition products:	nitrogen oxides (NO _x), carbon oxides.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	LD50/oral/rat = 2730-3800mg/kg. LC50/inhalation/4h/rat = 27.3mg/litre. LD50/dermal/rabbit = 988mg/kg
Sensitization:	Irritating to eyes, respiratory system and skin.
Long term toxicity:	Danger of serious damage to health by prolonged exposure to solvent.
Chronic toxicity:	Not mutagenic in AMES Test. Did not show carcinogenic, teratogenic or mutagenic effects in animal experiments.

12. ECOLOGICAL INFORMATION

Mobility:	Completely miscible with water.
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Product name: **ACETONITRILE****Persistence / degradability:**

Readily biodegradable, according to appropriate OECD test (98%/28d).

Biochemical oxygen demand (BOD) = >70% of Theoretical oxygen demand (ThOD)

Bioaccumulation: estimated Bioconcentration factor (BCF) = 0.3.

Ecotoxicity: LC50/24h/daphnia = > 10000mg/litre
 LC50/96h/guppy = 1000mg/litre
 LC50/96h/Fathead minnows = 1000mg/litre
 Toxicity to algae >7300mg/litre/8 d.
 Toxicity to bacteria >680mg/litre

13. DISPOSAL CONSIDERATIONS**Waste from residues / unused products:**

Can be incinerated, when in compliance with local regulations.

Contact waste disposal services.

Contaminated packaging:

Empty containers can be landfilled after cleaning, when in compliance with local regulations.

14. TRANSPORT INFORMATION**ADR/RID**

Proper shipping name:	Acetonitrile	Item:	3b
Class:	3		
Packaging group:	II	HI/UN No:	1648

IMO

Proper shipping name:	Acetonitrile	IMDG Page:	3173
Class:	3.2	MFAG:	215
EmS:	3.06	UN-No:	1648
Packaging group:	II		
Marine pollutant:	not		

ICAO

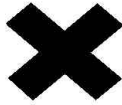
Proper shipping name:	Acetonitrile	UN/ID No:	1648
Class:	3		
Packaging group:	II		

15. REGULATORY INFORMATION**Classification according to European directive on classification of hazardous preparations 2001/58/EC**- **Contains:** Acetonitrile

Product name: **ACETONITRILE**

- Symbol(s):

F - Highly flammable



Xn -Harmful

R -phrase(s):

R11 - Highly flammable.

R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.

R36 - Irritating to eyes.

S -phrase(s):

S16 - Keep away from sources of ignition - No smoking.

S36/37 - Wear suitable protective clothing and gloves.

16. OTHER INFORMATION

Recommended restrictions: Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors)

Recommended use: General purpose solvent.

Further information: Contact Labscan Limited

REVISION DATE: 20/08/2002

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.