SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 12-Jul-2024 **Revision Number** 1

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

1.1. Product identifier

Product Catalog Number:	Product Description:
30-3152-XX	0.25M DCI in Anhydrous Acetonitrile

Product Code(s)
30-3152-XX

Product Name
Activator

Synonyms Methyl cyanide, ACN

Pure substance/mixture Substance
Contains Acetonitrile

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use For research use only

Uses advised against Not for human diagnostic use

1.3. Details of the supplier of the safety data sheet

Manufacturer
Glen Research LLC
22825 Davis Drive
Sterling, VA 20164 USA

For further information, please contact

E-mail address support@glenresearch.com

Website www.glenresearch.com

Company Phone Number 1-703-437-6191

1.4. Emergency telephone number

Emergency Telephone CHEMTREC Customer Number (CCN): 234802 Glen Research Corporation
US: 1-800-424-9300 or Local: +1-703-527-3887
EMEA: +44 20 3885 0382
APAC: +65 3163 8374

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to
Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity - Oral	Category 4 - (H302)
Acute toxicity - Dermal	Category 4 - (H312)

Acute toxicity - Inhalation (Vapors)	Category 4 - (H332)
Serious eye damage/eye irritation	Category 2 - (H319)

- (H225)

2.2. Label elements

Contains Acetonitrile

Signal word
Warning

Hazard statements
H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H319 - Causes serious eye irritation
H332 - Harmful if inhaled

Precautionary Statements - EU (§28, 1272/2008)
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P312 - Call a POISON CENTER or doctor if you feel unwell
P501 - Dispose of contents/ container to an approved waste disposal plant

Additional information
This product requires tactile warnings if supplied to the general public.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Acetonitrile 75-05-8	93-97	No data available	(608-001-00-3) 200-835-2	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Eye Irrit. 2 (H319) Flam. Liq. 2 (H225)	-	-	-
4,5-Dicyanoimidazole 1122-28-7	3-7	No data available	-	No data available	-	-	-

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

Acute Toxicity Estimate
If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion

value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Acetonitrile 75-05-8	No data available	2000	26.8	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

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

Inhalation Remove to fresh air. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact Wash off immediately with plenty of water for at least 15 minutes. If symptoms persist, call a physician.

Ingestion Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Not an expected route of exposure. IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician. Get medical attention.

Self-protection of the first aider Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Use personal protective equipment as required. See section 8 for more information.

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

Symptoms Metabolism may release cyanide, which may result in headache, dizziness, weakness, collapse, unconsciousness, and possible death. May cause redness and tearing of the eyes. Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	No information available.
Hazardous combustion products	Hydrogen cyanide. Nitrogen oxides (NOx). Carbon oxides.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Avoid breathing vapors or mists.
Other information	Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections	See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Avoid breathing vapors or mists. In case of insufficient ventilation, wear suitable respiratory equipment.
General hygiene considerations	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Take off contaminated clothing and wash before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Acetonitrile 75-05-8	TWA: 40 ppm TWA: 70 mg/m³ *	TWA: 40 ppm TWA: 70 mg/m³ STEL 160 ppm STEL 280 mg/m³ H*	TWA: 20 ppm TWA: 34 mg/m³ D*	TWA: 40 ppm TWA: 70 mg/m³ K*	TWA: 40 ppm TWA: 70 mg/m³ *

Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Acetonitrile 75-05-8	TWA: 40 ppm TWA: 70 mg/m³	TWA: 70 mg/m³ Ceiling: 100 mg/m³ D*	TWA: 40 ppm TWA: 70 mg/m³ H* STEL: 80 ppm STEL: 140 mg/m³	TWA: 40 ppm TWA: 70 mg/m³ A*	TWA: 20 ppm TWA: 34 mg/m³ STEL: 40 ppm STEL: 68 mg/m³ iho*

Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Acetonitrile 75-05-8	TWA: 40 ppm TWA: 70 mg/m³ *	TWA: 10 ppm TWA: 17 mg/m³ H*	TWA: 10 ppm TWA: 17 mg/m³ Peak: 20 ppm Peak: 34 mg/m³ *	TWA: 40 ppm TWA: 70 mg/m³ STEL: 60 ppm STEL: 105 mg/m³ *	TWA: 40 ppm TWA: 70 mg/m³ STEL: 5 mg/m³ b*

Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Acetonitrile 75-05-8	TWA: 40 ppm TWA: 70 mg/m³ STEL: 120 ppm STEL: 310 mg/m³ Sk*	TWA: 20 ppm TWA: 35 mg/m³ cute*	TWA: 20 ppm TWA: 34 mg/m³ cute*	TWA: 40 ppm TWA: 70 mg/m³ Ada*	O* TWA: 40 ppm TWA: 70 mg/m³

Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Acetonitrile 75-05-8	Peau* TWA: 40 ppm TWA: 70 mg/m³	skin* TWA: 40 ppm TWA: 70 mg/m³	TWA: 20 ppm TWA: 34 mg/m³ STEL: 4.5 ppm STEL: 5 mg/m³ H*	TWA: 30 ppm TWA: 50 mg/m³ STEL: 45 ppm STEL: 75 mg/m³ H*	STEL: 140 mg/m³ TWA: 70 mg/m³ skóra*

Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Acetonitrile 75-05-8	TWA: 40 ppm TWA: 70 mg/m³ Cutânea*	TWA: 40 ppm TWA: 70 mg/m³ STEL: 1 mg/m³ P*	TWA: 40 ppm TWA: 70 mg/m³ K* Ceiling: 5 mg/m³	TWA: 40 ppm TWA: 70 mg/m³ STEL: 140 mg/m³ STEL: 80 ppm K*	TWA: 40 ppm TWA: 68 mg/m³ vía dérmica*

Chemical name	Sweden	Switzerland	United Kingdom
Acetonitrile 75-05-8	NGV: 30 ppm NGV: 50 mg/m³ Vägledande KGV: 60 ppm Vägledande KGV: 100 mg/m³ H*	TWA: 20 ppm TWA: 34 mg/m³ STEL: 40 ppm STEL: 68 mg/m³ H*	TWA: 40 ppm TWA: 68 mg/m³ STEL: 60 ppm STEL: 102 mg/m³ Sk*

Biological occupational exposure limits

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
Acetonitrile 75-05-8	-	-	-	6.5 mg/24 hours - urine (Thiocyanates) - urine collected over	-

				24 hours <3 mg - urine and blood (Thiocyanate ratio in urine (mg/g Creatinine) and Carboxyhemoglobin in blood (%)) - urine and blood collected at the end of the work shift	

Derived No Effect Level (DNEL) No information available.
Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering controls
Showers
Eyewash stations
Ventilation systems

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Wear suitable gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Take off contaminated clothing and wash before reuse.

Environmental exposure controls No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear Liquid
Color	Clear
Odor	Pungent Sweet Ether-like odor
Odor threshold	170 ppm

Property	**Values**	**Remarks • Method**
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	2.0 °C	(Acetonitrile)
Autoignition temperature	No data available	None known
Decomposition temperature		None known

pH	No data available	(4,5-Dicyanoimidazole)
pH (as aqueous solution)	No data available	No information available
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	Completely soluble	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapor pressure	No data available	None known
Relative density	0.79g/mL	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapor density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regard to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

10.4. Conditions to avoid

Conditions to avoid Excessive heat.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products Hydrogen cyanide. Nitrogen oxides (NOx). Carbon oxides.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. Not an expected route of exposure. Harmful by inhalation. (based on components).

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.

Skin contact Specific test data for the substance or mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation. May be absorbed through the skin in harmful amounts. Harmful in contact with skin. (based on components).

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Not an expected route of exposure. Harmful if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Metabolism may release cyanide, which may result in headache, dizziness, weakness, collapse, unconsciousness, and possible death. May cause redness and tearing of the eyes. Coughing and/ or wheezing.

Acute toxicity

Numerical measures of toxicity
No information available

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	636.10 mg/kg
ATEmix (dermal)	1,134.00 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-dust/mist)	99,999.00 mg/l
ATEmix (inhalation-vapor)	11.30 mg/l

Unknown acute toxicity

3 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
3 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
3 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Acetonitrile	617 mg/kg (mouse)	> 2000 mg/kg (Rabbit)	= 26.8 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation May cause skin irritation.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye irritation.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Acetonitrile	-	LC50: 1600 - 1690mg/L (96h, Pimephales promelas) LC50: =1000mg/L (96h, Pimephales promelas) LC50: =1850mg/L (96h, Lepomis macrochirus) LC50: =1650mg/L (96h, Poecilia reticulata)	-	-

12.2. Persistence and degradability

Persistence and degradability Not Likely.

12.3. Bioaccumulative potential

Bioaccumulation

Bioconcentration factor (BCF) log Pow <= 4

Component Information

Chemical name	Partition coefficient
Acetonitrile	-0.34

12.4. Mobility in soil

Mobility in soil Not expected to adsorb on soil.

Mobility Soluble in water.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

Chemical name	PBT and vPvB assessment
Acetonitrile	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Dispose of in accordance with federal, state and local regulations. Do not reuse empty containers.

SECTION 14: Transport information

IATA

14.1 UN number or ID number UN1648
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Class 3
14.4 Packing group Packing Group II
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None

IMDG

14.1 UN number or ID number UN1648
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Class 3
14.4 Packing group Packing Group II
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None
EmS-No. F-E, S-D
14.7 Maritime transport in bulk according to IMO instruments No information available

RID

14.1 UN number or ID number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
Acetonitrile 75-05-8	RG 84	-

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorizations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
Acetonitrile - 75-05-8	75.	-

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

TSCA	All of the components of this product are listed in the TSCA Inventory or exempt.
DSL/NDSL	Listed or exempt
EINECS/ELINCS	Listed or exempt
ENCS	Listed or exempt
IECSC	Listed or exempt
KECI	Listed or exempt
PICCS	Listed or exempt
AIIC	Listed or exempt

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC - Australian Inventory of Industrial Chemicals

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3
H225 - Highly flammable liquid and vapor
H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H319 - Causes serious eye irritation
H332 - Harmful if inhaled

Legend
SVHC: Substances of Very High Concern for Authorization:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	Sk*	Skin designation

Revision date 12-Jul-2024

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)
Disclaimer
The information provided herein is based on sources believed to be reliable as of the issue date of this document, and pertains only to the material designated. Glen Research LLC makes no warranty or representation to its completeness, accuracy or currency. This material is intended for use by persons with the pertinent technical skills an at their discretion and risk. It is responsibility of the user to determine te product's suitability for its intended use, the product's safe use and the product's proper disposal. disposal of hazardous material may be subject to federal. state or local regulations.

End of Safety Data Sheet