

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:
30-3100-XX	Sublimed 1H-Tetrazole in Anhydrous Acetonitrile
Product Code(s) 30-3100-XX	Product Name Activator
Synonyms	Methyl cyanide, ACN
Pure substance/mixture Contains Acetonitrile	Substance
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 th	e safety data sheet
Manufacturer Glen Research LLC 22825 Davis Drive Sterling, VA 20164 USA	
For further information, please con	ntact
E-mail address	support@glenresearch.com
Website	www.glenresearch.com
Company Phone Number	1-703-437-6191
1.4. Emergency telephone num	per
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

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 (Dusts/Mists)	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	EC No (EU	Classification according	Specific	M-Factor	M-Factor
		number	Index No)	to Regulation (EC) No.	concentration		(long-term)
				1272/2008 [CLP]	limit (SCL)		
Acetonitrile	95-99	No data available	(608-001-00	Acute Tox. 4 (H302)	-	-	-
75-05-8			-3)	Acute Tox. 4 (H312)			
			200-835-2	Acute Tox. 4 (H332)			
				Eye Irrit. 2 (H319)			
				Flam. Liq. 2 (H225)			

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		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 meas	ures
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4.1. Descri	ption 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 me	edical 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 th	e substance or mixture
Specific hazards arising from the	No information available.

chemical

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

5.3. Advice for firefighters

Special protective equipment and
precautions for fire-fightersFirefighters 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 conta	inment 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, inc	cluding 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	Euro	pean Union	Austria	Belgium	Bu	Ilgaria	Croatia
Acetonitrile 75-05-8		/A: 40 ppm A: 70 mg/m ³ *	TWA: 40 ppm TWA: 70 mg/m ³ STEL 160 ppm	TWA: 20 ppm TWA: 34 mg/m³ D*		: 40 ppm 70 mg/m³ K*	TWA: 40 ppm TWA: 70 mg/m ³ *
			STEL 280 mg/m ³ H*				
Chemical name		Cyprus	Czech Republic	Denmark	Es	stonia	Finland
Acetonitrile		/A: 40 ppm	TWA: 70 mg/m ³	TWA: 40 ppm		: 40 ppm	TWA: 20 ppm
75-05-8	TWA	Գ։ 70 mg/m³	Ceiling: 100 mg/m ³	TWA: 70 mg/m ³	TWA: 70 mg/m ³		TWA: 34 mg/m ³
			D*	H*		A*	STEL: 40 ppm
				STEL: 80 ppm			STEL: 68 mg/m ³
		-		STEL: 140 mg/m ³			iho*
Chemical name		France	Germany TRGS	Germany DFG	_		Hungary
Acetonitrile 75-05-8		/A: 40 ppm A: 70 mg/m ³	TWA: 10 ppm TWA: 17 mg/m ³	TWA: 10 ppm TWA: 17 mg/m ³		: 40 ppm 70 mg/m³	TWA: 40 ppm TWA: 70 mg/m ³
75-05-0	1 1 1 1	*. 70 mg/m°	H*	Peak: 20 ppm		: 60 ppm	STEL: 5 mg/m ³
				Peak: 34 mg/m ³		105 mg/m ³	b*
				*	0.22.	*	No.
Chemical name		Ireland	Italy MDLPS	Italy AIDII	L	atvia	Lithuania
Acetonitrile		/A: 40 ppm	TWA: 20 ppm	TWA: 20 ppm	TWA	: 40 ppm	O*
75-05-8		4: 70 mg/m³	TWA: 35 mg/m ³	TWA: 34 mg/m ³		70 mg/m³	TWA: 40 ppm
		L: 120 ppm	cute*	cute*	l A	\da*	TWA: 70 mg/m ³
	STEL	.: 310 mg/m ³					
		Sk*	N 4 - 14 -	Nother stars de	NI.		Dalaud
Chemical name	Lu	xembourg	Malta skin*	Netherlands		orway	Poland
Acetonitrile 75-05-8	Τ\Λ	Peau* /A: 40 ppm	TWA: 40 ppm	TWA: 20 ppm TWA: 34 mg/m ³		: 30 ppm 50 mg/m ³	STEL: 140 mg/m ³ TWA: 70 mg/m ³
75-05-0		A: 70 mg/m ³	TWA: 40 ppm TWA: 70 mg/m ³	STEL: 4.5 ppm		: 45 ppm	skóra*
	,	t. 70 mg/m	rww.romg/m	STEL: 5 mg/m ³		75 mg/m ³	31010
				H*		H*	
Chemical name		Portugal	Romania	Slovakia		ovenia	Spain
Acetonitrile		/A: 40 ppm	TWA: 40 ppm	TWA: 40 ppm		: 40 ppm	TWA: 40 ppm
75-05-8		A: 70 mg/m ³	TWA: 70 mg/m ³	TWA: 70 mg/m ³		70 mg/m ³	TWA: 68 mg/m ³
		Cutânea*	STEL: 1 mg/m ³	K*		140 mg/m ³	vía dérmica*
			P*	Ceiling: 5 mg/m ³	SIEL	: 80 ppm K*	
Chemical name	Sweden		weden	Switzerland		United Kingdom	
Acetonitrile		NGV	: 30 ppm	TWA: 20 ppm			VA: 40 ppm
75-05-8	75-05-8 NC		50 mg/m ³	TWA: 34 mg/m ³		TWA: 68 mg/m ³	
			e KGV: 60 ppm	STEL: 40 ppm		STEL: 60 ppm	
			KGV: 100 mg/m ³	STEL: 68 mg/m ³		STEL: 102 mg/m ³	
			H*	H*		Sk*	

Biological occupational exposure limits

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
Acetonitrile	-	-	-	6.5 mg/24 hours -	-
75-05-8				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 ConcentrationNo information available.(PNEC)

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

0.4 Information on books about all		
9.1. Information on basic physical a		
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 rang	eNo data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive	No data available	
limits		
Lower flammability or explosive	No data available	
limits		
Flash point	2.0 °C	(Acetonitrile)
Autoignition temperature	No data available	None known
Decomposition temperature		None known
pH	No data available	(1H-Tetrazole)
pH (as aqueous solution)	No data available	No information available
Kinematic viscosity	No data available	None known
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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 Sensitivity to static discharge	None. 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 pro	<u>ducts</u>	

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)	1.55 mg/l
ATEmix (inhalation-vapor)	99,999.00 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 (dust/mist).

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 14.2 UN proper shipping name 14.3 Transport hazard class(es) 14.4 Packing group 14.5 Environmental hazards 14.6 Special precautions for user Special Provisions 	UN1648 Not regulated Class 3 Packing Group II Not applicable None
IMDG14.1UN number or ID number14.2UN proper shipping name14.3Transport hazard class(es)14.4Packing group14.5Environmental hazards14.6Special precautions for user Special Provisions EmS-No.14.7Maritime transport in bulk according to IMO instruments	UN1648 Not regulated Class 3 Packing Group II Not applicable None F-E, S-D No information available
RID14.1UN number or ID number14.2UN proper shipping name14.3Transport hazard class(es)14.4Packing group14.5Environmental hazards14.6Special precautions for user Special Provisions	Not regulated Not regulated Not regulated Not regulated Not applicable None
<u>ADR</u> 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	RG 84	-
75-05-8		

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	Substance subject to authorization per
	Annex XVII	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

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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)

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