

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 28-Jun-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:
40-4128-XX	5% Phenoxyacetic Anhydride in Acetonitrile

Product Code(s)
40-4128-XX
Product Name
Cap Mix B

Pure substance/mixture

Mixture

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]

1.094.41.01. (20) 1.01.12.2200 [02.]	
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

Not applicable

3.2 Mixtures

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	93-97	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 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

SECTION 5: Firefighting measures

5.1. Extinguishing media

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.

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 ConditionsKeep 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	Igaria	Croatia
Acetonitrile		/A: 40 ppm	TWA: 40 ppm	TWA: 20 ppm		40 ppm	TWA: 40 ppm
75-05-8	TWA	A: 70 mg/m ³	TWA: 70 mg/m ³	TWA: 34 mg/m ³		70 mg/m ³	TWA: 70 mg/m ³
		•	STEL 160 ppm STEL 280 mg/m ³	D*		K*	*
			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	A: 70 mg/m ³	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/m³
Chamical name			Carrage TDCC	STEL: 140 mg/m ³	C.		iho*
Chemical name Acetonitrile		France	Germany TRGS	Germany DFG		reece	Hungary
75-05-8		/A: 40 ppm A: 70 mg/m ³	TWA: 10 ppm TWA: 17 mg/m³	TWA: 10 ppm TWA: 17 mg/m ³		: 40 ppm 70 mg/m ³	TWA: 40 ppm TWA: 70 mg/m ³
75-05-0	1 7 7	*	H*	Peak: 20 ppm		: 60 ppm	STEL: 5 mg/m ³
				Peak: 34 mg/m ³		105 mg/m ³	b*
				*		*	
Chemical name		Ireland	Italy MDLPS	Italy AIDII		atvia	Lithuania
Acetonitrile		/A: 40 ppm	TWA: 20 ppm	TWA: 20 ppm		40 ppm	O*
75-05-8		A: 70 mg/m ³	TWA: 35 mg/m ³	TWA: 34 mg/m ³		70 mg/m ³	TWA: 40 ppm
		L: 120 ppm	cute*	cute*	P	\da*	TWA: 70 mg/m ³
	SIEL	ـ: 310 mg/m³ Sk*					
Chemical name	Lu	xembourg	Malta	Netherlands	No	orway	Poland
Acetonitrile		Peau*	skin*	TWA: 20 ppm		30 ppm	STEL: 140 mg/m ³
75-05-8	TW	/A: 40 ppm	TWA: 40 ppm	TWA: 34 mg/m ³		50 mg/m ³	TWA: 70 mg/m ³
	TWA	A: 70 mg/m ³	TWA: 70 mg/m ³	STEL: 4.5 ppm		: 45 ppm	skóra*
				STEL: 5 mg/m ³		75 mg/m ³	
01 1		- · · ·		H*		H*	0 1
Chemical name		Portugal	Romania	Slovakia		ovenia	Spain
Acetonitrile 75-05-8		/A: 40 ppm A: 70 mg/m ³	TWA: 40 ppm TWA: 70 mg/m ³	TWA: 40 ppm TWA: 70 mg/m ³		: 40 ppm 70 mg/m ³	TWA: 40 ppm TWA: 68 mg/m ³
75-05-0		Cutânea*	STEL: 1 mg/m ³	K*		140 mg/m³	vía dérmica*
	`	odianoa	P*	Ceiling: 5 mg/m ³		: 80 ppm	via dominoa
				3 3		K*	
Chemical name			weden	Switzerland			ted Kingdom
Acetonitrile			: 30 ppm	TWA: 20 ppm			VA: 40 ppm
75-05-8			50 mg/m ³	TWA: 34 mg/m			'A: 68 mg/m ³
			e KGV: 60 ppm KGV: 100 mg/m ³	STEL: 40 ppm			EL: 60 ppm L: 102 mg/m ³
		vagiedailde	H*	STEL: 68 mg/m ³ H*		315	Sk*
			11			l	OK

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 (Thiocyana	е
	ratio in urine (mg/	
	Creatinine) and	
	Carboxyhemoglob	
	in blood (%)) - urir	
	and blood collecte	
	at the end of the	
	work shift	

Derived No Effect Level (DNEL)
Predicted No Effect Concentration

No information available. No 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 protectionWear 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 stateLiquidAppearanceClear LiquidColorClear

Odor Pungent Sweet Ether-like odor

Odor threshold 170 ppm

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

Melting point / freezing pointNo data availableNone knownInitial boiling point and boiling rangeNo data availableNone knownFlammabilityNo data availableNone knownFlammability Limit in AirNone known

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Flash point2.0 °C(Acetonitrile)Autoignition temperatureNo data availableNone knownDecomposition temperatureNone known

pH No data available None known

pH (as aqueous solution) No data available No information available

No data available None known Kinematic viscosity Dynamic viscosity No data available None known Water solubility Completely soluble None known No data available Solubility(ies) None known Partition coefficient No data available None known No data available Vapor pressure None known Relative density 0.79g/mL None known

Bulk density
No data available
No data available
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 materialsNone 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) 649.50 mg/kg
ATEmix (dermal) 1,157.90 mg/kg
ATEmix (inhalation-gas) 99,999.00 ppm
ATEmix (inhalation-dust/mist) 1.58 mg/l
ATEmix (inhalation-vapor) 99,999.00 mg/l

Unknown acute toxicity

 $5\ \%$ of the mixture consists of ingredient(s) of unknown acute oral toxicity.

5 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

5 % 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 exposureNo 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 toxicityContains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
			microorganisms	
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)
UN1648
Not regulated
Class 3

14.4 Packing groupPacking Group II14.5 Environmental hazardsNot applicable

14.6 Special precautions for user

Special Provisions None

IMDG

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
UN1648
Not regulated
Class 3
Packing Group II
Not applicable

14.6 Special precautions for user Special Provisions

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
14.2 UN proper shipping name
14.3 Transport hazard class(es)
14.4 Packing group
14.5 Environmental hazards
Not regulated Not regulated Not applicable

14.6 Special precautions for user

Special Provisions None

ADR

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
 Not regulated
 Not regulated
 Not regulated
 Not regulated
 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
Listed or exempt
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

Leaend

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 28-Jun-2024

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Disclaimer

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End of Safety Data Sheet