

acc. to 29 CFR 1910.1200 App D

PENAIR C-5572

Version number: 2.1 Revision: 2024-08-05 Replaces version of: 2024-04-10 (1)

SECTION 1: Identification

1.1 Product identifier

Trade name PENAIR C-5572

Alternative number(s) XB16070, XB16070DR55, XB16070PL5

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

Relevant identified uses Aircraft Exterior Cleaner

1.3 Details of the supplier of the safety data sheet

Chemisphere 2101 Clifton Ave St. Louis MO 63139 United States

Telephone: 314-644-1300

Fax: 314-644-7194

Website: www.ChemisphereCorp.com

Email: jbrooks@chemispherecorp.com

1.4 Emergency telephone number

Emergency information service CHEMTREC: 800-424-9300 (24 Hour)

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and cat- egory	Hazard state- ment
A.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
A.3	serious eye damage/eye irritation	2B	Eye Irrit. 2B	H320

For full text of abbreviations: see SECTION 16.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word warning

- Pictograms

GHS07



- Hazard statements H315+H320

Causes skin and eye irritation.

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- Precautionary statements

P280 Wear protective gloves.

P302+P352 If on skin: Wash with plenty of water.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.

2.3 Other hazards

of no significance

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier		Wt%
Water	CAS No	7732-18-5	50 - < 75
Ethoxylated Alcohols	CAS No	68439-46-3	25 - < 50
Capramide DEA	CAS No	136-26-5	10 - < 25

Remarks

For full text of abbreviations: see SECTION 16

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

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4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO2)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Control of the effects

Protect against external exposure, such as frost

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits) this information is not available

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Ethoxylated Alcohols	68439-46-3	DNEL	294 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic ef- fects
Ethoxylated Alcohols	68439-46-3	DNEL	2,080 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic ef- fects
Capramide DEA	136-26-5	DNEL	11.5 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Capramide DEA	136-26-5	DNEL	0.75 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic ef- fects

Relevant PNECs of components							
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time	
Ethoxylated Alcohols	68439-46-3	PNEC	0.104 ^{mg} / _l	aquatic organisms	freshwater	short-term (single in- stance)	
Ethoxylated Alcohols	68439-46-3	PNEC	0.104 ^{mg} / _l	aquatic organisms	marine water	short-term (single in- stance)	
Ethoxylated Alcohols	68439-46-3	PNEC	1.4 ^{mg} / _l	aquatic organisms	sewage treatment	short-term (single in-	

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Relevant PNECs of components						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
					plant (STP)	stance)
Ethoxylated Alcohols	68439-46-3	PNEC	13.7 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single in- stance)
Ethoxylated Alcohols	68439-46-3	PNEC	13.7 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single in- stance)
Ethoxylated Alcohols	68439-46-3	PNEC	1 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single in- stance)
Capramide DEA	136-26-5	PNEC	7 ^{µg} / _I	aquatic organisms	freshwater	short-term (single in- stance)
Capramide DEA	136-26-5	PNEC	0.7 ^{µg} / _l	aquatic organisms	marine water	short-term (single in- stance)
Capramide DEA	136-26-5	PNEC	830 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single in- stance)
Capramide DEA	136-26-5	PNEC	0.23 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single in- stance)
Capramide DEA	136-26-5	PNEC	23 ^{µg} / _{kg}	aquatic organisms	marine sediment	short-term (single in- stance)
Capramide DEA	136-26-5	PNEC	32 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single in- stance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection. Use safety goggle with side protection. Wear face-shield.

Skin protection

- Hand protection

Wear suitable gloves.

- Other protection measures

Wash hands thoroughly after handling. Protective clothing against liquid chemicals. Footwear protecting against chemicals.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Avoid release to the environment.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Color	Clear amber
Particle	not relevant (liquid)
Odor	characteristic

Other safety parameters

pH (value)	8 – 9
Melting point/freezing point	32 °F at 1,013 hPa
Initial boiling point and boiling range	212 °F
Flash point	not determined
Evaporation rate	not determined
Flammability (solid, gas)	not relevant, (fluid)
Vapor pressure	0 Pa at 20 °C
Density	not determined
Vapor density	this information is not available
Relative density	information on this property is not available
Solubility(ies)	not determined

Partition coefficient

- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	311 °C
Viscosity	not determined
Explosive properties	none
Oxidizing properties	none

9.2 Other information

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Liquid content	100 %
Solid content	0 %
Temperature class (USA, acc. to NEC 500)	T2 (maximum permissible surface temperature on the equipment: 300°C)

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

Oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Shall not be classified as acutely toxic.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes eye irritation.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

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Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components						
Name of substance	CAS No	Endpoint	Value	Species	Exposure time	
Ethoxylated Alcohols	68439-46-3	LC50	7 ^{mg} / _l	fish	96 h	
Ethoxylated Alcohols	68439-46-3	EC50	2.5 ^{mg} / _l	aquatic invertebrates	48 h	
Capramide DEA	136-26-5	LC50	2.4 ^{mg} / _l	fish	96 h	
Capramide DEA	136-26-5	EC50	3.2 ^{mg} / _l	aquatic invertebrates	48 h	
Capramide DEA	136-26-5	ErC50	3.9 ^{mg} / _l	algae	72 h	

Aquatic toxicity (chronic) of components						
Name of substance	CAS No	Endpoint	Value	Species	Exposure time	
Ethoxylated Alcohols	68439-46-3	EC50	140 ^{mg} / _l	microorganisms	3 h	
Capramide DEA	136-26-5	EC50	6,000 ^{mg} / _l	microorganisms	16 h	

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

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Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1	UN number	not assigned
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14.2 UN proper shipping name not relevant

14.3 Transport hazard class(es) none

14.4 Packing group not assigned

14.5 **Environmental hazards** non-environmentally hazardous acc. to the dangerous goods regula-

14.6 Special precautions for user

Do not handle until all safety precautions have been read and understood. .

14.7 <u>Information for each of the UN Model Regulations</u>

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information Not subject to transport regulations.

International Maritime Dangerous Goods Code (IMDG) - Additional information Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information Not subject to ICAO-IATA.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA) all ingredients are listed (ACTIVE) or exempt from

listing

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

none of the ingredients are listed

- Specific Toxic Chemical Listings (EPCRA Section 313) none of the ingredients are listed

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4) none of the ingredients are listed

Clean Air Act

none of the ingredients are listed

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Right to Know Hazardous Substance List

- Cleaning Product Right to Know Act Substance List (CA-RTK) none of the ingredients are listed
- Toxic or Hazardous Substance List (MA-TURA) none of the ingredients are listed
- Hazardous Substances List (MN-ERTK) none of the ingredients are listed
- Hazardous Substance List (NJ-RTK) none of the ingredients are listed
- Hazardous Substance List (Chapter 323) (PA-RTK) none of the ingredients are listed
- Hazardous Substance List (RI-RTK) none of the ingredients are listed

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

none of the ingredients are listed

Drug precursors, Chemicals designated within the Controlled Substances Act, 21 U.S.C. § 802, paragraphs 34 (list I) and 35 (list II)

none of the ingredients are listed

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	2	temporary or minor injury may occur
Flammability	0	material that will not burn under typical fire conditions
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	0	material that will not burn under typical fire conditions
Health	2	material that, under emergency conditions, can cause temporary incapacitation or residual injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

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National inventories

Country	Inventory	Status
AU	AIIC	all ingredients are listed
CA	DSL	all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	not all ingredients are listed
EU	REACH Reg.	all ingredients are listed
JP	CSCL-ENCS	all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	not all ingredients are listed
NZ	NZIoC	not all ingredients are listed
PH	PICCS	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed (ACTIVE)

<u>Legend</u>

AIIC Australian Inventory of Industrial Chemicals

CSCL-ENCS List of Existing and New Chemical Substances (CSCL-ENCS)

DSL Domestic Substances List (DSL)

ECSI EC Substance Inventory (EINECS, ELINCS, NLP)

IECSC Inventory of Existing Chemical Substances Produced or Imported in China

INSQ National Inventory of Chemical Substances
KECI Korea Existing Chemicals Inventory

NZIoC New Zealand Inventory of Chemicals

PICCS Philippine Inventory of Chemicals and Chemical Substances (PICCS)

REACH Reg. REACH registered substances

TCSI Taiwan Chemical Substance Inventory

TSCA Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-rel- evant
3.2		Description of the mixture: change in the listing (table)	yes
12.1	Toxicity: Harmful to aquatic life with long lasting effects.	Toxicity: Toxic to aquatic life with long lasting effects.	yes

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Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
NLP	No-Longer Polymer
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PNEC	Predicted No-Effect Concentration

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture. Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H315	Causes skin irritation.
H320	Causes eye irritation.

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Disclaimer

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