
SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

1.1 PRODUCT IDENTIFIER

Product name: Armal Urinal Clean

1.2 RELEVANT IDENTIFIED USES OF THE MIXTURE AND USES ADVISED AGAINST

Use of the mixture: Urinal Cleaner

Use advised against: All other uses. Not for general public use.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Name of the supplier: ARMAL, INC.
122 Hudson Industrial Drive
Griffin, GA 30224
Telephone: 770-491-6410
E-mail:armal-inc@armal.us

1.4 EMERGENCY TELEPHONE NUMBER

+011 352-323-3500 (24/7)

Germany 0800-1812924

SECTION 2: HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE MIXTURE

Classification according to Regulation No 1272/2008 (CLP):

Eye Damage, category 1, H318

2.2 LABEL ELEMENTS

Labelling according to Regulation No 1272/2008 (CLP):

Pictograms:



Signal Word: DANGER

Hazard Statements: H318 Causes serious eye damage.
H208 May produce an allergic reaction.

Precautionary Statements:

Prevention: P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response: P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/physician.

Contains: C9-11 alcohols ethoxylated, tetrasodium EDTA and limonene

2.3 OTHER HAZARDS

This mixture contains no PBT/vPvB substances at $\geq 0.1\%$.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 SUBSTANCES

The product is a mixture.



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3.2 MIXTURES

Substance name	CAS No	EC No	REACH registration No	Conc. % (w/w)	Classification according to Regulation No 1272/2008 (CLP)
organic acid mixture	68439-46-3	614-482-0	Registration not required	10-20	Eye Irrit. 2; H319
C9-11 alcohols ethoxylated	5989-27-5	227-813-5	Registration not required	1-3	Acute Tox. 4; H302 (oral) Eye Dam. 1; H318
(R)-p-mentha-1,8-diene (limonene)	5989-27-5	227-813-5	Registration not required	0.1-1.0	Flam. Liq. 3; H226 Asp. Tox. 1; H304 Skin Irrit. 2; H315 Skin Sens. 1B; H317 Aquatic Acute 1; H400 Aquatic Chronic 3; H412

* Substance with workplace exposure limits, see section 8.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4. FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

GENERAL: If unwell or concerned, immediately get medical attention or call a Poison Centre. If medical advice is needed, have product container or label at hand.

IN EYES: Immediately cautiously flush eyes with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue washing with water. Seek immediate medical attention.

ON SKIN (hair): Take off immediately all contaminated clothing. Wash skin with plenty of soap and water [or shower]. If skin irritation or rash occurs, get medical advice/attention. Wash contaminated clothing before reuse.

SWALLOWED: DO NOT induce vomiting. Rinse mouth with water. Seek medical attention. Never give anything to an unconscious person. If vomiting occurs, keep head low so that stomach content does not get into the lungs.

INHALED: Move to fresh air and keep at rest in a position comfortable for breathing.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

EYES: Serious eye damage, tears, redness, pain, blurred vision. Corrosive effects. May cause temporary blindness and severe eye damage.

SKIN: Irritation: Inflammation, redness, irritation, bumps, blisters.
Allergic reaction: redness, swelling, itchy skin, rash.

SWALLOWED: Stomach discomfort. Irritation to mucous membranes.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treat symptomatically. No known specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Suitable Extinguishing Media: Water, carbon dioxide, dry chemical, alcohol resistant foam.



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Unsuitable Extinguishing Media: Water jet spray.

5.2 SPECIAL HAZARDS ARISING FROM SUBSTANCE OR MIXTURE

In case of fire, do not breath fumes. By heating and fire, harmful vapours/gases may be formed. Combustion products may include oxides of carbon, nitrogen and sulphur.

5.3 ADVICE FOR FIREFIGHTERS

Exercise caution when fighting any chemical fire. Prevent human exposure to fire, fumes, smoke, and products of combustion. Wear self-contained breathing apparatus to fight fires. Prevent fire-fighting water from entering environment. Keep containers cool with water spray.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Wear protective equipment as per Section 8. Avoid contact with eyes and skin. Wash hands and other exposed skin areas thoroughly with mild soap and water after handling. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace.

Mark off the contaminated area with signs and prevent access to unauthorized personnel. Ventilate area.

Contact local authorities in case of spillage to drain/aquatic environment.

6.2 ENVIRONMENTAL PRECAUTIONS

Prevent entry to sewers and public waters. Avoid release to the environment other than via the advised use of the product.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Soak up material with non-combustible absorbent (sand, vermiculite, earth, diatomaceous earth) to prevent migration and entry into sewers or streams and shovel into a chemical waste container. Dispose of waste as hazardous waste according to local regulations. Wash spill area thoroughly with plenty of water. Prevent product from entering drains. Contain spill. Soak up material with absorbent and shovel into a chemical waste container. Cover container and remove from work area.

6.4 REFERENCE TO OTHER SECTIONS

Refer to sections 7, 8, 12 and 13.

SECTION 7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Handle in accordance with good hygiene and safety practice. Wear personal protective equipment as per Section 8. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling, before eating, drinking, or smoking and when leaving work. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. In case of inadequate ventilation, wear respiratory protection.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store in a well-ventilated, cool, dry area away from heat and direct sunlight. Keep in tightly closed, original and dry container. Avoid frost. Store locked up.

Do not store with peroxide, phenol, strong acids, amines and strong oxidizing agents.

Do not store near food stuffs, water or feed.

Recommended packaging: same type as original packaging.

Unsuitable packaging: none identified.

7.3 SPECIFIC END USE(S)

Refer to section 1.2.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Where listed, National Occupational Exposure limits (OEL) applicable in EU, Germany, Latvia, Romania and Switzerland for:

Substance Country	Limit value – Eight hours		Limit value – Short term	
	ppm	mg/m ³	ppm	mg/m ³

(1) 15 minutes average value (2) Inhalable fraction and vapour
There are other values in some EU countries.

8.2 EXPOSURE CONTROLS

8.2.1 Appropriate Engineering Control Measures:

HAND PROTECTION: Wear gloves EN 374-3. Suggested material: neoprene, nitrile rubber.

EYE PROTECTION: Wear eye protection EN 166 (safety glasses with side shield, goggles or face shield). Eye wash fountain is recommended.

SKIN PROTECTION: Wear suitable protective clothing.

RESPIRATORY PROTECTION: In case of inadequate ventilation or if exposure limits may be exceeded, wear suitable respiratory protection.

THERMAL HAZARDS: See Sections 6 and 7.

HYGENIC PRACTICES: Handle in accordance with good professional hygiene and safety practice. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace.

ENVIRONMENTAL EXPOSURE CONTROLS:
Avoid release to the environment other than via the advised use of the product.

SECTION 9. PHYSICAL/CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid
Colour	Pale Green
Odour	Citrus
Melting point/freezing point	< 0 °C
Boiling/initial point and boiling range	>100 °C
Flammability	Non flammable
Lower and upper explosion limit	No data available
Flash point	>93.3°C
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	1-1.5
Kinematic viscosity	No data available
Solubility	Soluble in water
Partition coefficient n-octanol/water	No data available
Vapour pressure	<0.013kPa (<0.1mmHg)
Density and/or relative density	1.32–1.36
Relative vapour density	No data available
Particle characteristics	No data available



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9.2 OTHER INFORMATION

No other relevant information available

SECTION 10. STABILITY AND REACTIVITY

10.1 REACTIVITY

No dangerous reactions known under normal conditions of use recommended in section 7.

10.2 CHEMICAL STABILITY

Stable under recommended handling and storage conditions (see Section 7).

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

Under handling and storage conditions recommended in section 7, no hazardous reaction.

Hazardous reaction in aqueous solution may occur when mixed with peroxide, phenol, strong acids, amines and strong oxidizing agents.

10.4 CONDITIONS TO AVOID

Do not store or mix with peroxide, phenol, strong acids, amines, strong oxidizing agents, caustics, halogens, reactive chemicals.

10.5 INCOMPATIBLE MATERIALS

Will react with peroxide, phenol, strong acids, amines and strong oxidizing agents.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Oxides of Carbon, nitrogen, and sulphur. See section 5 for combustion products.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

No experimental test data are available on the mixture. The product has been classified based on the hazards of the known components.

ACUTE TOXICITY:

Based on available data, harmful if swallowed.

Substance	CAS No	Acute toxicity (rats)
Alcohols C9-11, ethoxylated	68439-46-3	LD50 (oral): 300 – 2 000 mg/kg bw

SKIN CORROSION/IRRITATION:

Based on available data, causes severe skin burns.

Substance	CAS No	Result
Alcohols C9-11, ethoxylated	68439-46-3	Not skin irritant.

SERIOUS EYE DAMAGE/IRRITATION:

Based on available data, causes serious eye damage.

Substance	CAS No	Result
Alcohols C9-11, ethoxylated	68439-46-3	Causes serious eye damage.

RESPIRATORY OR SKIN SENSITIZATION:

Based on available data, may cause an allergic skin reaction

Substance	CAS No	Result
Alcohols C9-11, ethoxylated	68439-46-3	Not a skin sensitizer

GERM CELL MUTAGENICITY:

Based on available data, the classification criteria are not met.



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CARCINOGENICITY:

Based on available data, the classification criteria are not met.

REPRODUCTIVE TOXICITY:

Based on available data, the classification criteria are not met.

STOT-SINGLE EXPOSURE:

Based on available data, the classification criteria are not met.

STOT-REPEATED EXPOSURE:

Based on available data, the classification criteria are not met.

ASPIRATION HAZARD:

Based on available data, the classification criteria are not met.

11.2 INFORMATION ON OTHER HAZARDS

Endocrine disrupting properties:

The mixture does not contain substances identified to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12. ECOLOGICAL INFORMATION

12.1 TOXICITY

No experimental test data are available on the mixture. The product has been classified based on the hazards of the known components. Based on available data, the product is toxic to aquatic life with long lasting effects (chronic).

Substance	CAS No	Result
Alcohols C9-11, ethoxylated	68439-46-3	NC/EC/IC50 > 1 mg/l

12.2 PERSISTENCE AND DEGRADABILITY

Substance	CAS No	Result

12.3 BIOACCUMULATIVE POTENTIAL

Not established.

12.4 MOBILITY IN SOIL

Not applicable to mixtures.

12.5 RESULTS OF PBT AND vPvB ASSESSMENT

Not applicable to mixtures. No PBT/vPvB substances in the mixture.

12.6 ENDOCRINE DISRUPTING PROPERTIES

The mixture does not contain substances identified to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 OTHER ADVERSE EFFECTS

No other relevant information available.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Dispose of in accordance with all appropriate governmental and local regulations as hazardous waste. Avoid release to the environment other than via the advised use of the product.



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Unused packaging: Discard according to the local regulations as hazardous waste. Do not discharge product in sewage and drainage systems which lead to waterways, other than via the advised use of the product.

Contaminated packaging: Waste product and worn-out packages must be discarded according to the local regulations as hazardous waste.

European Waste Catalogue code for the mixture:

SECTION 14. TRANSPORT INFORMATION

UN NUMBER
NOT REGULATED

UN PROPER SHIPPING NAME
NOT REGULATED

TRANSPORT HAZARD CLASS(ES)
NOT REGULATED

PACKING GROUP
NOT REGULATED

ENVIRONMENTALLY HAZARDOUS
NOT REGULATED

SPECIAL PRECAUTIONS FOR USER
-

MARITIME TRANSPORT IN BULK ACCORDING TO IMO INSTRUMENTS
Not applicable to packaged goods.

NOT REGULATED

SECTION 15. REGULATORY INFORMATION

SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

This Safety Data Sheet is provided in compliance with EU REACH Regulation No 1907/2006 as amended by Regulation (EU) 2020/878.

CHEMICAL SAFETY ASSESSMENT:
No Chemical Safety Assessment has been carried out.

SECTION 16. OTHER INFORMATION

This Safety Data Sheet replaces any previous version.

Version	Comment	Date
1.0	First Edition	July 2025

Key literature references and sources for data: supplier's SDS and ECHA C&L website.

Abbreviation explanations:

- OEL: Occupational Exposure Limit
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: Very Persistent and Very Bioaccumulative
- Flam. Liq. 2/3: flammable liquid category 2/3
- Acute Tox.3/4: Acute Toxicity category 3/4
- Skin Corr. 1B; corrosive to skin category 1B
- Eye Dam. 1: Eye Damage category 1
- Skin Irrit. 2: Skin Irritant category 2
- Eye Irrit. 2: Eye Irritant category 2
- Asp. Tox. 1: toxic by aspiration category 1
- Skin Sens.1/1B: Skin Sensitiser category 1/1B

Full text of Hazard- and EU Hazard-statements:

- H225: Highly flammable liquid and vapour
- H226: Flammable liquid and vapour
- H301: Toxic if swallowed
- H302: Harmful if swallowed
- H304: May be fatal if swallowed and enters airways
- H311: Toxic in contact with skin
- H312: Harmful in contact with skin
- H314: Causes severe skin burns and eye damage
- H315: Causes skin irritation
- H317: May cause an allergic skin reaction
- H318: Causes serious eye damage
- H319: Causes serious eye irritation
- H331: Toxic if inhaled
- H332: Harmful if inhaled
- H400: Very toxic to aquatic life
- H410: Very toxic to aquatic life with long lasting effects
- H411: Toxic to aquatic life with long lasting effects

Calculation based on the hazards of the known components. This safety data sheet is prepared in accordance with Regulation (EC) No 453/2010 and 2020/878.

The information accumulated herein is believed to be accurate but is not warranted. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

The information contained in this safety data sheet has been given in good faith and is based on our most recent technical knowledge and current legislation at European level regarding the product at the time of publication.