STONE armor

PENETRATOR PRO

1.1 Product identification

trade name	Stone Armor Penetrator Pro

1.2 Recommended use of the chemical and restrictions on use

Relevant applications identified	additive for construction material Waterproofing agent Surface treatment agent

1.3 Details of the supplier of the safety data sheet

Company	Advanced Armor, Inc. 4014 Magnolia Ave Lubbock, TX 79404
Telephone	806/370-7476
Email	info@advancedarmor.com

1.4 24-hour emergency telephone numbers

Chemtrec- US & Canada:	806-370-7476
Chemtrec Mexico	01-800-681-951
Chemtrec International	+1 703-527-3887

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2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation 29 CFR 1910 1200

Flammable liquids	Category 4	H227
Skin corrosion	Category 1A	H314
Serious eye damage	Category 1	H318

2.2 Label elements

Statutory basis Classification according to Regulation 29CR 1910 1200

Hazard-defining component(s) (GHS)

- Tripotassium proylsilanetriolate

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Symbol

Signal Word Danger

Hazard Statement	H227 Combustible Liquid H314 Causes severe skin burns and eye damage
Precautionary Statement Prevention	P210 Keep away from heat/sparks/open flame/hot surfaces NO Smoking P260 Do not breathe dust/fume/vapor/gas/spray/mist P264 Wash skin thoroughly after use P280 Wear protective gloves/clothing/eye protection/face protection
Precautionary Statement Reaction	P301 +P330+P331 IF SWALLOWED Rinse mouth. DO NOT induce vomiting P303+P361+P353 IF ON SKIN (hair) Take off immediately all contaminated clothing. Rinse skin with water/shower P304+P340 IF INHALED remove victim to fresh air and keep at rest in a position comfortable for breathing. P305+P351+P338 IF IN EYES Rinse cautiously several minutes if Remove contact lenses, if present and easy to do. Continue rinsing P310 Immediately call a POISON COMTTROL CENTER or Doctor/physician P363 Wash contaminated clothing before reuse P370+P378 In case of fire: Use water spray, alcohol-resistant foam, dry Chemical or carbon dioxide to extinguish
Precautionary Statement Storage	P403+P 235 Store in a well ventilated place. Keep cool P405 Store locked up
Precautionary Statement Disposal	P501 Dispose of contents/container to an approved waste disposal Plant

2.3 Other Hazards

None known

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3. Composition/Information on ingredients

Chemical Nature
Aqueous solution

• Potassium hydroxide	<5%
CAS –No 1310-58-3	
Corrosive to metals	Category 1
Acute toxicity (oral)	Category 4
Skin corrosion	Category 1A
Serious eye damage	Category 1
• NJTSR No. 56705700001-7204P	<=30%
CAS-No Trade Secret	
Skin corrosion	Category 1A
Serious eye damage	Category 1

Remarks Not a hazardous substance or mixture

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4. First aid measures

4.1 Description of first aid measures

General Advice
Remove contaminated or saturated clothing immediately and follow safe disposal procedures.

Inhalation
If aerosol or mists are formed, take affected persons out into the fresh air. Possible discomforts Include severe irritation of mucous lining (nose, throat, eyes), cough, sneezing and flow oftears.
Call a physician immediately
If breathing difficulties occur:
Keep patient half sitting with upper body raise

Skin Contact
Immediately wash with soap and water for at least fifteen minutes. Remove contaminated clothing and shoes.
Obtain medical attention. Thoroughly wash clothing and shoes before

Eye Contact
Rinse eye thoroughly immediately with plenty of water for at least 10 minutes. Continue rinsing process with eye rinsing solution. Protect uninjured eye. For caustic burn of the eyes, call and ambulance and obtain immediate medical treatment from an ophthalmologist

Ingestion
If accidentally swallowed, rinse mouth thoroughly with water and afterwards, drink plenty of water. In case of discomfort, obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed symptoms
None known

4.3 Indication of any immediate medical attention and special treatment needed
If substance has been swallowed, apply therapy for chemical burn. Early endoscopy is recommended in order to assess mucosa lesions in the esophagus and stomach which may appear. If necessary, suck away left over substances.

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5. Fire fighting measures

5.1 Extinguishing Media
Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media: High volume water jet

5.2 Special hazards arising from the substance or mixture
The product itself does not burn
May be released in case of fire: toxic gases/vapors. Combustible liquid. Vapors can travel to a source of
Ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint.

5.3 Advice for firefighters
Water used to extinguish fire should not enter drainage systems, soil or stretches of water
Ensure there are sufficient retaining facilities for water used to extinguish fire
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local Regulations.
Containers can build up pressure if exposed to heat (fire) Cool wit water spray. As in any fire, wear self-protective gear
As in any fire, wear self-contained positive pressure breathing apparatus, (MSHA/NIOSH approved or Equivalent), and full protective gear.

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6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment.

6.2 Environmental Practices

Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, rivers, groundwater or soil.

6.3 Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in a polyethylene-lined container for disposal according to local/national regulations (see section 13)

Additional advice
Remove sources of ignition and ventilate area
Run off may create fire or explosion hazard in sewer
Assure sufficient ventilation

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7. Handling and storage

7.1 Precautions for safe handling

Provide sufficient ventilation and exhaust at the workplace. Ventilators required at emission site. Do not
Breathe in vapors, aerosols, sprays

7.2 Conditions for safe storage, including any incompatibilities

Advice on protection against fire and explosion
This material may have a low electrical conductivity and therefore may accumulate dangerous levels of static electricity. An ignitable vapor-air mixture can form inside storage tanks

The user must be sure to dissipate static charge by careful bonding and grounding of all equipment and personnel involved in fluid transfer with continuity checks to prove effectiveness. Additional precautions against fire and explosion are the use of inert gas to purge vapor space, dip-pipes while filling vessels, especially lined vessels, grounded tank level floats, reduced flow velocity, self-closing valves on transfer lines and flame arrestors in vent lines.

Additional guidance on fire and explosion protection may be found in various consensus standards including NFPA 30,69 and 77 and API 2003 as well as OSHA regulation 29CFR1910.106

Follow all MSDS/label precautions even after container is emptied as it may retain product residues.

Storage
Store dry. Close container tightly

Usable materials Light metals
Residual vapors might explode on ignition, do not apply heat, cut, drill, grind or weld on or near this container

Advice on common storage
Do not store near acids

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8. Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures
If possible, use material transfer/filling, metering and blending plants that are closed.
If contact with gases or vapors cannot be excluded, provide good ventilation or extraction

Personal protective equipment
Respiratory protection

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable Federal/provincial requirements must be followed whenever workplace conditions warrant respirator use NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

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Hand protection

Glove material	for example, butyl-rubber
Material thickness	0.5 mm
Break through time	>=480 min
Glove material	for example, Fluorinated rubber (Viton)
Material thickness	0.4 mm
Break through time	>+ 480 min

Selection of protective gloves to meet the requirements of specific workplaces
Suitability for specific workplaces should be clarified with protective glove manufacturers
The information is based on our tests, references from the information and literature from glove manufacturers or derived by analogy with similar materials.
Please observe that the daily duration of usage of a chemical protective glove is in practice for shorter periods due to the many influencing factors (temperature, mechanical strain on glove material) than the permeation time determined acc. EN 374
The above mentioned hand protection is based on knowledge of the chemistry and anticipated uses of this product but it may not be appropriate for all workplaces. A hazard assessment should be conducted prior to use to ensure suitability of gloves for specific work environments and processes prior to use.
Use impermeable gloves.

Personal protective equipment that provides a barrier to prevent dermal exposure to substance is required

Eye Protection
Use chemical splash goggles or face shield

Skin and body protection
When handling larger quantities:
Chemical protective suit, disposable protective clothing, acid-proof
A safety shower and eye wash fountain must be readily available
To identify additional Personal Protective Equipment Requirements, it is recommended that a hazard assessment be conducted before using this product

Hygiene measures
Avoid contact with skin, eyes and clothing. Do not inhale vapors or aerosols. Do not eat, drink or Smoke when using the product. Remove contaminated or saturated clothing

Protective measures
Handle in accordance with good industrial hygiene and safety practice if workplace exposure limits are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used. If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used
Use protective clothing/face shield if necessary

Do not breathe in vapors or aerosols
Avoid contact with skin and eyes

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9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Color	colorless to light yellow, clear
Form	liquid
Odor	odorless
Odor Threshold	not determined
pH	>13 (25 degrees C)
Melting point/range	no data available
Boiling point/range	105 degree C (1013 hPa)
Flash point	>93 degrees C
Method	DIN EN ISO 2719 (Pensky-Martens, closed cup)
Evaporation rate	not determined
Flammability (solid, gas)	not determined
Lower explosion limit	not determined
Upper explosion limit	not determined
Vapor density	no data available
Relative Density	8.6
Water solubility	no data available
Partition coefficient: n-Octanol/water	not determined
Auto ignition temperature	not determined
Thermal decomposition	not determined
Viscosity, dynamic	not determined

9.2. Other information
no data available

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10. Stability and reactivity 10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions

10.4. Conditions to avoid None known

10.5. Incompatible materials Acids

Exothermic reaction with: acids

10.6. Hazardous decomposition products

None known

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11. Toxicological information

11.1. Information on toxicological effects

carcinogenicity assessment	Contains no carcinogenic substances as defined by NTP, IARC and/or OSHA
Further Information	No data is available on the product itself.

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12. Ecological information

12.1. Toxicity

No eco-toxicological studies are available on the mixture.

12.2. Persistence and degradability

Biodegradability	No data available

12.3. Bio-accumulative potential

Bioaccumulation	No data available

12.4. Mobility in soil Mobility

mobility	No data available

12.5. Other adverse effects Further Information

Further information	No data available

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13. Disposal considerations

13.1. Waste treatment methods

No data available

No data available

An Expert Judgment stated that no classification is necessary based on present knowledge..

Waste must be disposed of in accordance with federal, state, provincial and local regulations.

Since empty containers retain product residue, follow MSDS and label warnings even after container is emptied. Residual vapors might explode on ignition; do not apply heat, cut, drill, grind or weld on or near this container.

Uncleaned packaging

Do not reuse empty containers and dispose of in accordance with the regulations issued by the appropriate local authorities. If there is product residue in the emptied container, follow directions for handling on the container's label. Incorrect disposal or reuse of this container is illegal and can be dangerous. Other countries: observe the national regulations.

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14. Transport information

D.O.T. Road/Rail

14.1. UN number: UN 1814

14.2. UN proper shipping name: Potassium hydroxide, solution

14.3. Transport hazard class(es): 8

14.4. Packing group: III

14.5. Environmental hazards (Marine pollutant): --

14.6. Special precautions for user: No

Air transport ICAO-TI/IATA-DGR

14.1. UN number: UN 1814

14.2. UN proper shipping name: Potassium hydroxide, solution

14.3. Transport hazard class(es): 8

14.4. Packing group: III

14.5. Environmental hazards: --

14.6. Special precautions for user: Yes

IA TA-C: ERG-Code 8L

IA TA-P: ERG-Code 8L

Sea transport IMDG-Code/GGVSee (Germany)

14.1. UN number: UN 1814

14.2. UN proper shipping name: Potassium hydroxide, solution

14.3. Transport hazard class(es): 8

14.4. Packing group: III

14.5. Environmental hazards (Marine pollutant): --

14.6. Special precautions for user: Yes

EmS: F-A,S-B

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

for transport approval see regulatory information

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15. Regulatory information US Federal Regulations

OSHA

If listed below, chemical specific standards apply to the product or components: · None listed

Clean Air Act Section (112)

If listed below, components present at or above the de minimus level are hazardous air pollutants: · None listed

CERCLA Reportable Quantities

If listed below, a reportable quantity (RQ) applies to the product based on the percent of the named component:

· None listed SARA Title III Section 311/312 Hazard Categories

The product meets the criteria only for the listed hazard classes:

· Acute Health Hazard

· Fire Hazard SARA Title III Section 313 Reportable Substances If listed below, components are subject to the reporting requirements of Section 313 of Title I II of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

· None listed

Toxic Substances Control Act (TSCA)

If listed below, non-proprietary substances are subject to export notification under Section 12 (b) of TSCA:

· None listed State Regulations

California Proposition 65

A warning under the California Drinking Water Act is required only if listed below: · None listed

An employer using HMIS/NFPA labeling must through training ensure that its employees are fully aware of the hazards of the chemicals used.

HMIS Ratings

Health:	3
Flammability	2
Physical Hazard	1

NFPA Ratings

Health	3
Flammability	2
Reactivity	1

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16. HMIS Ratings

Preparation Date 09/16/2019

Legend

(ACC) American Chemistry Council (ACGIH) American Conference of Governmental Industrial Hygienists (ACS) Advisory Committee on Sustainability (ADI) Acceptable Daily Intake (ASTM) American Society for Testing and Materials (ATP) Adaptation to Technical Progress (BCF) Bio-concentration factor (BOD) Biochemical oxygen demand (c.c. CAO) closed cup Cargo Aircraft Only Carcinogen (CDN) Chemical Abstract Services Canada (CEPA) Canadian Environmental Protection Act (CERCLA) Comprehensive Environmental Response –

Compensation and Liability Act Code of Federal Regulations (CMR) carcinogenic-mutagenic-toxic for reproduction (COD) Chemical oxygen demand (DIN) German Institute for Standardization (DM EL) Derived minimum effect level (DNEL) Derived no effect level (DOT) Department of Transportation (EC50) half maximal effective concentration (EPA)Environmental Protection Agency (ErC50) Reduction of Growth Rate Emergency Response Guide Book Food and Drug Administration (GHS) Globally Harmonized System of Classification and Labeling of Chemicals (GLP) Good Laboratory Practice (GMO) Genetic Modified Organism (HCS) Hazard Communication Standard (HMIS) Hazardous Materials Identification System (IARC) International Agency for Research on Cancer (IATA) International Air Transport Association (IBC) Intermediate Bulk Container (ICAO-TI)International Civil Aviation Organization- Technical Instructions (ICCA) International Council of Chemical Association (ID) Identification number (IMDG) International Maritime Dangerous Goods (IUPAC) International Union of Pure and Applied Chemistry (ISO) International Organization For Standardization (LC50) 50 % Lethal Concentration (LD50) 50 % Lethal Dose (L(E)C50) LC50 or EC50 (LOA EL) Lowest observed adverse effect level (LO EL) Lowest observed effect level (MARPOL)International Convention for the Prevention of Pollution from Ships (NFPA) National Fire Protection Association (NOAEL) No observed adverse effect level (NOEC) no observed effect concentration (NOEL) no observed effect level (o.c.) open cup (OECD) Organization for Economic Cooperation and Development (OEL) Occupational Exposure Limit (OSHA) Occupational Safety and Health Administration (PBT) Persistent, bio-accumulative, toxic (PEC) Predicted effect concentration (PNEC) Predicted no effect concentration (RQ) Reportable Quantity (SDS) Safety Data Sheet (STOT) Specific Target Organ Toxicity (UN) United Nations (vPvB) very persistent, very bio-accumulative (voc) volatile organic compounds (WHMIS) Workplace Hazardous Materials Information System (WHO) World Health Organization

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