

1. Identification

Product identifier **F/P MORTAR ACCELERATOR**
Other means of identification None.
Recommended use Mortar Accelerator.
Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name Armor Limited, Inc.
Address 2410 US-15 South, Sumter, SC 29150

After hours telephone number 1-877-982-7667
Normal work hours telephone number 1-877-982-7667
Website www.armor-inc.com
E-mail customerservice@armor-inc.com
Emergency 24-hour telephone number CHEMTREC North America: +1-800-424-9300, International: +1-703-527-3887
Information on operation hours 8:00 a.m. to 5:00 p.m.

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Acute toxicity, oral Category 4
 Acute toxicity, inhalation Category 1
 Skin corrosion/irritation Category 1
 Serious eye damage/eye irritation Category 1
 Carcinogenicity Category 1
Environmental hazards Not classified.
OSHA defined hazards Not classified.

Label elements


Signal word Danger
Hazard statement Harmful if swallowed. Fatal if inhaled. Causes severe skin burns and eye damage. Causes serious eye damage. May cause cancer.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. In case of inadequate ventilation wear respiratory protection.

Response IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before re-use. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Specific treatment is urgent (see this label). If exposed or concerned: Get medical advice/attention.

Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
p-TOLUENESULFONIC ACID		104-15-4	57 - 61
SULFURIC ACID		7664-93-9	< 1

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Get medical attention.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse. Call a physician or poison control center immediately.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Call a physician or poison control center immediately.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Irritation of nose and throat. Upper respiratory tract irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
General information	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Dry chemical. Foam. Water.
Unsuitable extinguishing media	Water. Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Irritating and toxic gases or fumes may be released during a fire. Oxides of Sulfur may be produced in a fire.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area).

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Eliminate all sources of ignition. Do not breathe mist or vapor. Wear appropriate personal protective equipment. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not get this material on clothing. Provide adequate ventilation. Observe good industrial hygiene practices. When using do not eat or drink. Avoid prolonged exposure. Use care in handling/storage.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in a well-ventilated place. Keep container tightly closed.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
SULFURIC ACID (CAS 7664-93-9)	PEL	1 mg/m ³

US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value	Form
SULFURIC ACID (CAS 7664-93-9)	TWA	0.2 mg/m ³	Thoracic fraction.

US. NIOSH: Pocket Guide to Chemical Hazards Recommended Exposure Limits (REL)

Components	Type	Value
SULFURIC ACID (CAS 7664-93-9)	TWA	1 mg/m ³

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection

Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Do not get in eyes, on skin, on clothing. When using, do not eat, drink or smoke. Wash hands after handling. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance

Clear brown liquid.

Physical state	Liquid.
Form	Liquid.
Color	Brown
Odor	Hydrocarbon-like.
Odor threshold	Not available.
pH	<2
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	>200.0 °F (>93.3 °C)
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	>1 Heavier than air
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Soluble
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Specific gravity	> 1 - < 1.215

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Strong oxidizing agents. Avoid temperatures exceeding the flash point. Water.
Incompatible materials	Strong oxidizing agents. This product may react with strong alkalis.
Hazardous decomposition products	When heated to decomposition, highly toxic fumes of sulfur dioxide may be released.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Fatal if inhaled. May cause irritation to the respiratory system.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Harmful if swallowed. Causes digestive tract burns.

Symptoms related to the physical, chemical and toxicological characteristics Burning pain and severe corrosive skin damage. Contact with this material will cause burns to the skin, eyes and mucous membranes. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Irritation of nose and throat. Upper respiratory tract irritation.

Information on toxicological effects

Acute toxicity Harmful if inhaled. Harmful if swallowed.

Product	Species	Test Results
F/P MORTAR ACCELERATOR		
Acute		
Inhalation		
LC50	Rat	34700 mg/l, 1 Hours
Oral		
LD50	Rat	676 mg/kg

Components	Species	Test Results
p-TOLUENESULFONIC ACID (CAS 104-15-4)		
Acute		
Oral		
LD50	Rat	400 mg/kg
SULFURIC ACID (CAS 7664-93-9)		
Acute		
Inhalation		
LC50	-	0.018 mg/l, 8 Hours
Oral		
LD50	Rat	2140 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes severe skin burns and eye damage.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity May cause cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

SULFURIC ACID (CAS 7664-93-9) Known To Be Human Carcinogen.

Reproductive toxicity Not available.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not available.

Chronic effects Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

Further information This product has no known adverse effect on human health.

12. Ecological information

Ecotoxicity Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems. Not expected to be harmful to aquatic organisms.

Product	Species	Test Results
F/P MORTAR ACCELERATOR		
Aquatic		
Fish	Fish	4200 mg/l, 96 hours

Product	Species	Test Results
<i>Acute</i> Fish	LC50	Fish
		4200 mg/l, 96 hours estimated

Components	Species	Test Results
SULFURIC ACID (CAS 7664-93-9)		
Aquatic <i>Acute</i> Fish	LC50	Western mosquitofish (<i>Gambusia affinis</i>)
		42 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

SULFURIC ACID -2.2

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions You must test your waste using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations. Do not contaminate ponds, waterways or ditches with chemical or used container. If discarded, this product is considered a RCRA corrosive waste, D002.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code D002: Waste Corrosive material [pH ≤2 or =>12.5, or corrosive to steel]
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN2586
UN proper shipping name	Alkyl sulfonic acids, liquid or Aryl sulfonic acids, liquid with not more than 5 percent free sulfuric acid
Transport hazard class(es)	
Class	8
Subsidiary hazard	-
Label(s)	8
Packing group	III
Environmental hazards	
Marine pollutant	NO
Special precautions for user	Not assigned.
Special provisions	IB3, T4, TP1
Packaging exceptions	154
Packaging non bulk	203
Packaging bulk	241

IATA

UN number	UN2586
UN proper shipping name	Arylsulphonic acids, liquid with 5% or less free sulphuric acid
Transport hazard class(es)	
Class	8
Subsidiary hazard	-

Packing group	III
Environmental hazards	No.
ERG Code	8L
Special precautions for user	Not assigned.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	UN2586
UN proper shipping name	ALKYLSULPHONIC ACIDS, LIQUID or ARYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid

Transport hazard class(es)

Class	8
Subsidiary hazard	-
Packing group	III
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-B
Special precautions for user	Not assigned.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

DOT



IATA; IMDG



15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

SULFURIC ACID (CAS 7664-93-9) Listed.

SARA 304 Emergency release notification

SULFURIC ACID (CAS 7664-93-9) 1000 LBS

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
SULFURIC ACID	7664-93-9	1000	1000		

SARA 311/312 Hazardous chemical Yes

Classified hazard categories
 Acute toxicity (any route of exposure)
 Skin corrosion or irritation
 Serious eye damage or eye irritation
 Carcinogenicity

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

SULFURIC ACID (CAS 7664-93-9)

Safe Drinking Water Act (SDWA) Not regulated.**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

SULFURIC ACID (CAS 7664-93-9) 6552

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

SULFURIC ACID (CAS 7664-93-9) 20 %WV

DEA Exempt Chemical Mixtures Code Number

SULFURIC ACID (CAS 7664-93-9) 6552

US state regulations**California Proposition 65****WARNING:** WARNING: This product contains a chemical known to the State of California to cause cancer.**California Proposition 65 - CRT: Listed date/Carcinogenic substance**

SULFURIC ACID (CAS 7664-93-9) Listed: March 14, 2003

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 10-01-2024

Version # 01

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information This document has undergone significant changes and should be reviewed in its entirety.