

**1. Identification**

<b>Product identifier</b>	<b>ERTECH™ BGA</b>		
<b>Other means of identification</b>	None.		
<b>Recommended use</b>	Asphalt Additive.		
<b>Recommended restrictions</b>	None known.		
<b>Manufacturer/Importer/Supplier/Distributor information</b>			
<b>Company Name</b>	Armor Limited, Inc.		
<b>Address</b>	2410 US-15 South, Sumter, SC 29150		
<b>After hours telephone number</b>	1-877-982-7667		
<b>Normal work hours telephone number</b>	1-877-982-7667		
<b>Website</b>	www.armor-inc.com		
<b>E-mail</b>	customerservice@armor-inc.com		
<b>Emergency 24-hour telephone number</b>	CHEMTREC North America: +1-800-424-9300, International: +1-703-527-3887		
<b>Information on operation hours</b>	8:00 a.m. to 5:00 p.m.		

**2. Hazard(s) identification**

<b>Physical hazards</b>	Not classified.		
<b>Health hazards</b>	Skin corrosion/irritation	Category 2	
<b>Environmental hazards</b>	Not classified.		
<b>OSHA defined hazards</b>	Not classified.		

**Label elements**


<b>Signal word</b>	Warning		
<b>Hazard statement</b>	Causes skin irritation.		
<b>Precautionary statement</b>			
<b>Prevention</b>	Wash thoroughly after handling. Wear protective gloves.		
<b>Response</b>	IF ON SKIN: Wash with plenty of soap and water. Specific treatment see Section 4 of this SDS. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.		
<b>Storage</b>	Store away from incompatible materials.		
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.		
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.		
<b>Supplemental information</b>	None.		

**3. Composition/information on ingredients**
**Mixtures**

Chemical name	Common name and synonyms	CAS number	%
SULFUR		7704-34-9	48 - 55
Distillates (petroleum), hydrotreated heavy naphthenic		64742-52-5	46 - 50

Chemical name	Common name and synonyms	CAS number	%
QUARTZ		14808-60-7	< 0.1
Other components below reportable levels			1.47
<b>Composition comments</b>	Not classified as a carcinogen. Meets EU requirement of less than 3% (w/w) DMSO extract for total polycyclic aromatic compound (PAC) using IP 346.		
<b>4. First-aid measures</b>			
<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.		
<b>Skin contact</b>	Wash off immediately with plenty of water. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Get medical attention if irritation develops and persists.		
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.		
<b>Ingestion</b>	Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Never give anything by mouth to a victim who is unconscious or is having convulsions. Call a physician or poison control center immediately.		
<b>Most important symptoms/effects, acute and delayed</b>	May cause eye irritation. Skin irritation. May cause drowsiness or dizziness. Headache. Nausea, vomiting. May cause respiratory irritation. May cause redness and pain. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.		
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.		
<b>General information</b>	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.		

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical. Foam. Carbon dioxide (CO2). Powder. Dry sand.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Irritating and toxic gases or fumes may be released during a fire.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk. In the event of fire, cool tanks with water spray. Cool containers exposed to flames with water until well after the fire is out.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Prevent entry into waterways, sewers, basements or confined areas.  Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.  Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
<b>Environmental precautions</b>	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Prevent spillage entering a watercourse or sewer, contaminating soil or vegetation. If this is not possible notify police and appropriate authorities immediately. Avoid discharge into water courses or onto the ground.

## 7. Handling and storage

### Precautions for safe handling

Keep away from heat, sparks and open flame. Do not taste or swallow. Avoid breathing mist or vapor. Avoid prolonged exposure. When using, do not eat, drink or smoke. Do not use in areas without adequate ventilation. Wear personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Avoid contact with eyes and prolonged skin contact.

### Conditions for safe storage, including any incompatibilities

Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Store in a cool and well-ventilated place.

## 8. Exposure controls/personal protection

### Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

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

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	PEL	5 mg/m <sup>3</sup>	Mist.
QUARTZ (CAS 14808-60-7)	PEL	0.05 mg/m <sup>3</sup>	Respirable dust.

#### US. OSHA Table Z-3 Permissible Exposure Limits (PEL) for Mineral Dusts (29 CFR 1910.1000)

Components	Type	Value	Form
QUARTZ (CAS 14808-60-7)	TWA	0.1 mg/m <sup>3</sup>	Respirable.
		2.4 mppcf	Respirable.

#### ACGIH Material

Material	Type	Value
ERTECH™ BGA	STEL	10 mg/m <sup>3</sup>
	TWA	5 mg/m <sup>3</sup>

#### US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	TWA	5 mg/m <sup>3</sup>	Inhalable fraction.
QUARTZ (CAS 14808-60-7)	TWA	0.025 mg/m <sup>3</sup>	Respirable fraction.

#### NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

Components	Type	Value
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	IDLH	2500 mg/m <sup>3</sup>
QUARTZ (CAS 14808-60-7)	IDLH	50 mg/m <sup>3</sup>

#### U.S. - NIOSH Material

Material	Type	Value
ERTECH™ BGA	REL	5 mg/m <sup>3</sup>
	STEL	10 mg/m <sup>3</sup>

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

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	Ceiling	1800 mg/m <sup>3</sup>	
	STEL	10 mg/m <sup>3</sup>	Mist.
	TWA	350 mg/m <sup>3</sup>	
QUARTZ (CAS 14808-60-7)	TWA	0.05 mg/m <sup>3</sup>	Respirable dust.

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Avoid contact with eyes. Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
<b>Hand protection</b>	Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves.
<b>Other</b>	Avoid contact with the skin. Chemical/oil resistant clothing is recommended. Use gloves with long sleeves.
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Avoid contact with eyes. Do not get this material in contact with skin. Do not get this material on clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

<b>Appearance</b>	Liquid.
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Yellow.
<b>Odor</b>	Mild.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	>212 °F (>100 °C)
<b>Flash point</b>	329.0 °F (165.0 °C) Pensky-Martens Closed Cup
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	<1 mm Hg at 70°F
<b>Vapor density</b>	>1
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	>450 °F (>232.22 °C)
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Stable at normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.

<b>Conditions to avoid</b>	Heat, flames and sparks. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents. Copper and copper alloys. Chlorates. Nitrates. Steel. Strong acids. Strong bases.
<b>Hazardous decomposition products</b>	Carbon oxides. Water Vapor. Combustion products may include sulfur oxides and hydrogen sulfide. Nitrogen oxides (NOx).

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes skin irritation. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	May be harmful if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

**Symptoms related to the physical, chemical and toxicological characteristics** Direct contact with eyes may cause temporary irritation. Defatting of the skin. Skin irritation. Irritating to mouth, throat, and stomach. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Rash.

### Information on toxicological effects

**Acute toxicity** Not known. Not expected to be acutely toxic.

Components	Species	Test Results
SULFUR (CAS 7704-34-9)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg
<b>Inhalation</b>		
LC50	Rat	> 0.047 mg/l, 4 Hours
<b>Oral</b>		
LD50	Rat	> 5000 mg/kg

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

**Skin corrosion/irritation** Causes skin irritation.  
**Serious eye damage/eye irritation** May be irritating to eyes. Vapor or spray in the eyes may cause irritation and smarting.

### Respiratory or skin sensitization

**Respiratory sensitization** Not a respiratory sensitizer.  
**Skin sensitization** Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

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

**Carcinogenicity** This product contains crystalline silica. Silica is a known carcinogen; however in this encapsulated form the normal routes of exposure are unavailable. Meets EU requirement of less than 3% (w/w) DMSO extract for total polycyclic aromatic compound (PAC) using IP 346.

### IARC Monographs. Overall Evaluation of Carcinogenicity

Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5) 3 Not classifiable as to carcinogenicity to humans.

QUARTZ (CAS 14808-60-7) 1 Carcinogenic to humans.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

QUARTZ (CAS 14808-60-7) Cancer

### US. National Toxicology Program (NTP) Report on Carcinogens

QUARTZ (CAS 14808-60-7) Known To Be Human Carcinogen.

**Reproductive toxicity** Contains no ingredient listed as toxic to reproduction.

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** Prolonged inhalation may be harmful.

## 12. Ecological information

**Ecotoxicity** No data on possible environmental effects have been found.

Product		Species	Test Results
ERTECH™ BGA			
<b>Aquatic</b>			
<i>Acute</i>			
Fish	LC50	Fish	20000 mg/l, 96 hours estimated

Components		Species	Test Results
SULFUR (CAS 7704-34-9)			
<b>Aquatic</b>			
<i>Acute</i>			
Fish	LC50	Western mosquitofish ( <i>Gambusia affinis</i> )	> 10000 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 any ingredients in the mixture.

**Bioaccumulative potential** No data available.

**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** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** 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** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Offer rinsed packaging material to local recycling facilities.

## 14. Transport information

**DOT**  
Not regulated as dangerous goods.

**IATA**  
Not regulated as dangerous goods.

**IMDG**  
Not regulated as dangerous goods.

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

**General information** This product is not regulated as a hazardous material by the United States (DOT) or Canadian (TDG) transportation regulations.

## 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)** One or more components of the mixture are not on the TSCA 8(b) inventory or are designated "inactive".

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

Not regulated.

### **CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

## SARA 304 Emergency release notification

Not regulated.

## OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

QUARTZ (CAS 14808-60-7)

Cancer  
lung effects  
immune system effects  
kidney effects

## Superfund Amendments and Reauthorization Act of 1986 (SARA)

### SARA 302 Extremely hazardous substance

Not listed.

### SARA 311/312 Hazardous chemical

Yes

**Classified hazard categories** Skin corrosion or irritation

### 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)

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

## US state regulations

### US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

QUARTZ (CAS 14808-60-7)

### California Proposition 65



**WARNING:** WARNING: This product contains a chemical known to the State of California to cause cancer and reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### California Proposition 65 - CRT: Listed date/Carcinogenic substance

QUARTZ (CAS 14808-60-7)

Listed: October 1, 1988

## 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** 12-09-2021

**Revision date** 06-05-2024

**Version #**  
**Further information**  
**NFPA ratings**

02  
HMIS® is a registered trade and service mark of the NPCA.  
Health: 2  
Flammability: 0  
Instability: 0

**References**

ACGIH  
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices  
EPA: AQUIRE database  
IARC Monographs. Overall Evaluation of Carcinogenicity  
National Toxicology Program (NTP) Report on Carcinogens  
NLM: Hazardous Substances Data Base  
US. IARC Monographs on Occupational Exposures to Chemical Agents

**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. Armor cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

**Revision information**

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