SAFETY DATA SHEET



1. Identification

Product identifier ERTECH 2111

Other means of identification None.

Recommended useNot available. **Recommended restrictions**None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name ErgonArmor, a division of Ergon Asphalt & Emulsions, Inc.

Address 2829 Lakeland Drive Jackson, MS 39232

USA

After hours telephone

number

1-800-222-7122

Normal work hours telephone number

1-877-982-7667

telephone number Website

www.ergonarmor.com sds@ergon.com

Emergency 24-hour

3u3@Crgon.com

telephone number

CHEMTREC: North America 1-800-424-9300 International 1-800-527-3887

Information on operation

8:00 a.m. to 5:00 p.m.

hours

E-mail

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.
OSHA defined hazards Not classified.

Label elements

Hazard symbol None.
Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise

classified (HNOC)

None known.

Supplemental information Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Aliphatic Polyol		Proprietary	0.31
OXALIC ACID DEHYDRATE		6153-56-6	0.29
2,2',2"-(HEXAHYDRO-1,3,5-TRIAZI NE-1,3,5-TRIYL)TRIETHANOL		4719-04-4	0.24
QUARTZ		14808-60-7	0.15
CRISTOBALITE		14464-46-1	0.04

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Chemical name	Common name and synonyms	CAS number	%
BRONOPOL		52-51-7	0.02
2-AMINOETHANOL		141-43-5	0.01
MAGNESIUM NITRATE		10377-60-3	0.01
OXYGEN		7782-44-7	0.01
5-CHLORO-2-METHYL-2H-ISOTHIA OL-3-ONE	Z	26172-55-4	0.003
2-METHYL-2H-ISOTHIAZOL-3-ONE		2682-20-4	0.0009
ASPHALT		8052-42-4	45.47
WATER		7732-18-5	49.01
CELLULOSE		9004-34-6	0.65
PROPRIETARY INGREDIENTS		N/A	3.79

4. First-aid measures

Inhalation If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.

Call a physician if symptoms develop or persist.

Skin contact If clothing sticks to the skin, do not remove. Lotion or hand cream may aid in the removal of

asphalt. Wash contact areas with soap and water. If needed, seek medical attention.

Eye contactImmediately 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 if irritation develops and persists.

Rinse mouth. DO NOT induce vomiting. Get medical attention immediately. If ingestion of a large

amount does occur, call a poison control center immediately.

Direct contact with eyes may cause temporary irritation.

Most important

symptoms/effects, acute and

delayed

Ingestion

Indication of immediate medical attention and special

treatment needed
General information

Treat symptomatically.

Ensure that medical personnel are aware of the material(s) involved, and take precautions to

protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing

media

Foam. Dry chemical powder. Carbon dioxide (CO2).

Water. Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from

the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for

firefighters

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. Structural firefighters protective clothing will only provide limited protection.

ALWAYS stay away from tanks engulfed in flame. Fight fire from maximum distance or use

unmanned hose holders or monitor nozzles. Move containers from fire area if you can do so without risk. In the event of fire, cool tanks with water spray.

Tisk: In the event of fire, cool talks with water spray.

Specific methods In the event of fire and/or explosion do not breathe fumes. In the event of fire, cool tanks with

water spray.

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. 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.

Methods and materials for containment and cleaning up

This product is miscible in water.

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. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas.

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. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Ventilate area and avoid breathing vapors or mist. For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Avoid prolonged exposure. Use only in well-ventilated areas. Hydrogen sulfide, a very highly toxic gas, may be present with this material. Keep face clear of tank and/or tank car openings. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site.

Conditions for safe storage, including any incompatibilities

Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in original tightly closed container. Store in a well-ventilated place.

8. Exposure controls/personal protection

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

Occupational exposure limits

Components	Туре	Value	Form
2-AMINOETHANOL (CAS 141-43-5)	PEL	6 mg/m3	
		3 ppm	
CELLULOSE (CAS 9004-34-6)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
CRISTOBALITE (CAS 14464-46-1)	PEL	0.05 mg/m3	Respirable dust.
OXALIC ACID DEHYDRATE (CAS 6153-56-6)	PEL	1 mg/m3	
QUARTZ (CAS 14808-60-7)	PEL	0.05 mg/m3	Respirable dust.
US. OSHA Table Z-3 (29 CFR 191	=		
Components	Туре	Value	Form
CRISTOBALITE (CAS 14464-46-1)	TWA	0.05 mg/m3	Respirable.
		1.2 mppcf	Respirable.
QUARTZ (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable.
		2.4 mppcf	Respirable.
US. ACGIH Threshold Limit Value	es		
Components	Туре	Value	Form
2-AMINOETHANOL (CAS 141-43-5)	STEL	6 ppm	
•	TWA	3 ppm	
ASPHALT (CAS 8052-42-4)	TWA	0.5 mg/m3	Inhalable fume.
CELLULOSE (CAS 9004-34-6)	TWA	10 mg/m3	
CRISTOBALITE (CAS 14464-46-1)	TWA	0.025 mg/m3	Respirable fraction.

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US. ACGIH Threshold Limit Values Components	Туре	Value	Form
OXALIC ACID DEHYDRATE (CAS 6153-56-6)	STEL	2 mg/m3	
	TWA	1 mg/m3	
QUARTZ (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
US. NIOSH: Pocket Guide to Chemi	cal Hazards		
Components	Туре	Value	Form
2-AMINOETHANOL (CAS 141-43-5)	STEL	15 mg/m3	
		6 ppm	
	TWA	8 mg/m3	
		3 ppm	
ASPHALT (CAS 8052-42-4)	Ceiling	5 mg/m3	Fume.
Cellulose (CAS 9004-34-6)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Total
CRISTOBALITE (CAS 14464-46-1)	TWA	0.05 mg/m3	Respirable dust.
OXALIC ACID DEHYDRATE (CAS 6153-56-6)	STEL	2 mg/m3	
	TWA	1 mg/m3	
QUARTZ (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.

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.

Individual protection measures, such as personal protective equipment

Eye/face protection Chemical goggles and face shield are recommended. Wear safety glasses with side shields (or

goggles).

Skin protection

Hand protection Chemical resistant gloves are recommended. If contact with forearms is likely wear quantilet style

gloves

Other Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged

vapor contact. Plastic or rubber gloves, apron and boots.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate

certified respirators.

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.

9. Physical and chemical properties

Appearance Viscous liquid
Physical state Liquid.

Form Liquid.
Color Brown

Odor Mild Petroleum Odor

Odor threshold Not available.

pH 5 - 7

Melting point/freezing point $32 \, ^{\circ}\text{F} (0 \, ^{\circ}\text{C})$ Initial boiling point and $212 \, ^{\circ}\text{F} (100 \, ^{\circ}\text{C})$

boiling range Flash point

> 212.0 °F (> 100.0 °C)

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Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower

Not available.

(%)

Flammability limit -

upper (%)

Not available.

Explosive limit - lower

(%)

Not available.

Explosive limit - upper

(%)

Not available.

Vapor pressure 60 mm Hg at 100°F, approx.

Vapor density Not available.

Relative density Not available.

Solubility(ies)

Solubility (water) Slightly

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperatureNot available.Decomposition temperatureNot available.ViscosityNot available.Viscosity temperature77 °F (25 °C)

Other information

VOC 0.2 lb/gal maximum

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport

Chemical stability Stable under normal temperature conditions. **Possibility of hazardous** Hazardous polymerization does not occur.

reactions

Conditions to avoid Avoid temperatures exceeding the flash point. Contact with incompatible materials. Do not overheat

product.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition

products

Upon decomposition, this product may yield sulfur dioxide, carbon monoxide, carbon dioxide and/or

low molecular weight hydrocarbons. Hydrogen sulfide.

11. Toxicological information

Information on likely routes of exposure

Inhalation Prolonged inhalation may be harmful.

Skin contact No adverse effects due to skin contact are expected.

Eye contact May be irritating to eyes.

Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

Components Species Test Results

2-AMINOETHANOL (CAS 141-43-5)

Acute Oral

LD50 Rat 10.2 g/kg

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Components Species Test Results

BRONOPOL (CAS 52-51-7)

<u>Acute</u> Dermal

LD50 Rat 64 mg/kg

Inhalation

LC50 Rat > 5 mg/l, 6 Hours

CRISTOBALITE (CAS 14464-46-1)

Acute Oral

LD50 Rat > 22500 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye

May be irritating to eyes.

irritation

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization May cause skin disorders if contact is repeated or prolonged.

Germ cell mutagenicityNo 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.

IARC Monographs. Overall Evaluation of Carcinogenicity

ASPHALT (CAS 8052-42-4) 2B Possibly carcinogenic to humans.

CRISTOBALITE (CAS 14464-46-1) 1 Carcinogenic to humans. QUARTZ (CAS 14808-60-7) 1 Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

CRISTOBALITE (CAS 14464-46-1) Cancer QUARTZ (CAS 14808-60-7) Cancer

US. National Toxicology Program (NTP) Report on Carcinogens

CRISTOBALITE (CAS 14464-46-1) Known To Be Human Carcinogen.

Reasonably Anticipated to be a Human Carcinogen.

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

Reproductive toxicity Not available. **Specific target organ toxicity** Not classified.

- single exposure

Specific target organ toxicity Not classified.

- repeated exposure

Aspiration hazard Not available.

Chronic effects Not expected to be hazardous by OSHA criteria.

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

12. Ecological information

Ecotoxicity Not expected to be harmful to aquatic organisms.

Product Species Test Results

ERTECH 2111

Aquatic

Crustacea EC50 Daphnia 43103.4492 mg/l, 48 hours estimated

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

Components Species Test Results

2-AMINOETHANOL (CAS 141-43-5)

Aquatic

Fish LC50 Rainbow trout, donaldson trout 114 - 196 mg/l, 96 hours

(Oncorhynchus mykiss)

OXALIC ACID DEHYDRATE (CAS 6153-56-6)

Aquatic

Crustacea EC50 Water flea (Daphnia magna) 125 - 150 mg/l, 48 hours

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)

2-AMINOETHANOL -1.31 BRONOPOL -0.64

Mobility in soil No data available.

Other adverse effectsNo 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 instructionsCollect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in

accordance with all applicable regulations. No components are identified as hazardous wastes.

Disposal recommendations are based on uncontaminated material.

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. Not applicable.

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). Avoid discharge into water courses or onto the ground.

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

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Not available.

Annex II of MARPOL 73/78

and the IBC Code

15. Regulatory information

US federal regulations All components are on the U.S. EPA TSCA Inventory List.

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

2-METHYL-2H-ISOTHIAZOL-3-ONE (CAS 2682-20-4)
1.0 % One-Time Export Notification only.

5-CHLORO-2-METHYL-2H-ISOTHIAZOL-3-ONE (CAS 26172-55-4)

 $1.0\ \%$ One-Time Export Notification only.

OXALIC ACID DEHYDRATE (CAS 6153-56-6)

1.0 % One-Time Export Notification only.

CERCLA Hazardous Substance List (40 CFR 302.4)

ASPHALT (CAS 8052-42-4) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

CRISTOBALITE (CAS 14464-46-1) Cancer

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

QUARTZ (CAS 14808-60-7) Cancer
CRISTOBALITE (CAS 14464-46-1) lung effects
QUARTZ (CAS 14808-60-7) lung effects

CRISTOBALITE (CAS 14464-46-1) immune system effects QUARTZ (CAS 14808-60-7) immune system effects

CRISTOBALITE (CAS 14464-46-1) kidney effects QUARTZ (CAS 14808-60-7) kidney effects

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

Classified hazard Respiratory or skin sensitization

categories Reproductive toxicity

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

Not regulated.

(SDWA)

US state regulations WARNING: This product contains a chemical known to the State of California to cause cancer.

California Proposition 65

 \triangle

WARNING: WARNING: This product contains a chemical known to the State of California to cause cancer.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

ASPHALT (CAS 8052-42-4) Listed: January 1, 1990 QUARTZ (CAS 14808-60-7) Listed: October 1, 1988

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

ASPHALT (CAS 8052-42-4) CRISTOBALITE (CAS 14464-46-1) MAGNESIUM NITRATE (CAS 10377-60-3) QUARTZ (CAS 14808-60-7)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	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)	No
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 07-28-2015 **Revision date** 09-10-2020

Version # 04

Further information HMIS® is a registered trade and service mark of the NPCA.

NFPA ratings Health: 1

Flammability: 1 Instability: 0

References ACGIH

EPA: AQUIRE database

NLM: Hazardous Substances Data Base

US. IARC Monographs on Occupational Exposures to Chemical Agents

IARC Monographs. Overall Evaluation of Carcinogenicity National Toxicology Program (NTP) Report on Carcinogens

ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

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. The information in the sheet was written

based on the best knowledge and experience currently available.

Revision information Composition / Information on Ingredients: Disclosure Overrides

Fire-fighting measures: Specific hazards arising from the chemical

Physical & Chemical Properties: Multiple Properties