



1. Identification

Product identifier	ERTECH 8100					
Other means of identification	None.					
Recommended use	Not available.					
Recommended restrictions	None known.					
Manufacturer/Importer/Suppl	ier/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					
Website	www.ergonarmor.com					
E-mail	sds@ergon.com					
Emergency 24-hour telephone number	CHEMTREC: North America 1-800-424-9300 International 1-800-527-3887					
Information on operation hours	8:00 a.m. to 5:00 p.m.					

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 3
Health hazards	Acute toxicity, inhalation	Category 3
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		
Signal word	Warning	

Signal word	warning
Hazard statement	Flammable liquid and vapor. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. Harmful if inhaled.
Precautionary statement	
Prevention	Keep container tightly closed. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area.
Response	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed or concerned: Get medical advice/attention. If swallowed: Rinse mouth. Do NOT induce vomiting. Call a poison center/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. In case of fire: Use appropriate media to extinguish. Take off contaminated clothing and wash it before reuse.

Storage	Keep cool. 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	%
2-BUTOXYETHANOL		111-76-2	0 - 40
BUTAN-2-OL		78-92-2	5 - < 10
CALCIUM CARBONATE		471-34-1	0 - 10
CARBON BLACK		1333-86-4	0 - 10
AMMONIUM HYDROXIDE		1336-21-6	< 1
Other components below reportat	le levels		70 - < 80

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

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. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a poison center or doctor/physician.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
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. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse. Keep victim under observation.
5. Fire-fighting measures	

Suitable extinguishing media	Water spray. Water fog. Alcohol resistant foam. Dry chemical powder. Foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. Material will float and may ignite on surface of water.
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	In case of fire and/or explosion do not breathe fumes. 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	Flammable liquid and vapor.

6. Accidental release measures

V. Accidental release me	
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). 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. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Use water spray to reduce vapors or divert vapor cloud drift. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent product from entering drains.
	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.
	Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. 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. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
7. Handling and storage	
Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

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 Limits for Air Contaminants (29 CFR 1910.1000) Components Type Value Form					
2-BUTOXYETHANOL (CAS 111-76-2)	PEL	240 mg/m3			
		50 ppm			
AMMONIUM HYDROXIDE (CAS 1336-21-6)	PEL	35 mg/m3			
		50 ppm			
BUTAN-2-OL (CAS 78-92-2)	PEL	450 mg/m3			
		150 ppm			

US. OSHA Table Z-1 Limi Components		Туре			Value	Form
CALCIUM CARBONATE (CAS 471-34-1)	5	PEL			5 mg/m3	Respirable fraction.
				:	15 mg/m3	Total dust.
CARBON BLACK (CAS 1333-86-4)		PEL			3.5 mg/m3	
US. ACGIH Threshold Lir Components	nit Values	Туре		,	Value	Form
2-BUTOXYETHANOL (CAS 111-76-2)		TWA			20 ppm	
AMMONIUM HYDROXIDE (CAS 1336-21-6)		STEL			35 ppm	
- /		TWA			25 ppm	
BUTAN-2-OL (CAS 78-92-2)		TWA		:	100 ppm	
CARBON BLACK (CAS 1333-86-4)		TWA			3 mg/m3	Inhalable fraction.
US. NIOSH: Pocket Guid Components	e to Chemical H	lazards Type	5	,	Value	Form
2-BUTOXYETHANOL (CAS		TWA		2	24 mg/m3	
111-76-2)					5 ppm	
Ammonium Hydroxide (Cas 1336-21-6)		STEL			27 mg/m3	
(0.0 1000 11 0)					35 ppm	
		TWA			18 mg/m3	
					25 ppm	
BUTAN-2-OL (CAS 78-92-2)		STEL			455 mg/m3	
· · · · ·					150 ppm	
		TWA			305 mg/m3	
				:	100 ppm	
CALCIUM CARBONATE (CAS 471-34-1)	5	TWA		!	5 mg/m3	Respirable.
				:	10 mg/m3	Total
CARBON BLACK (CAS 1333-86-4)		TWA		(0.1 mg/m3	
ogical limit values	• •					
ACGIH Biological Exposu Components	ire Indices Value		Determinant	Specimen	Sampling	g Time
2-BUTOXYETHANOL (CAS 111-76-2)	200 mg/g		Butoxyacetic acid (BAA), with hydrolysis	Creatinine i urine	n *	
* - For sampling details, ple	ase see the sour	ce docu				
osure guidelines						
US - California OELs: Ski	n designation					
2-BUTOXYETHANOL (C				absorbed three	ough the skin.	
US - Minnesota Haz Sub	-	tion ap	-		liaa	
2-BUTOXYETHANOL (C US - Tennessee OELs: Sk 2 BUTOXYETHANOL (C	in designation			esignation app		
2-BUTOXYETHANOL (C US NIOSH Pocket Guide		azarder		absorbed thron	ougn the skin.	

US OSHA Table 7-1 Limits for Air Contaminants (29 CEP 1910 1000)

US. OSHA Table Z-1 Limits	for Air Contaminants (29 CFR 1910.1000)
2-BUTOXYETHANOL (CAS	111-76-2)Can be absorbed through the skin.
Appropriate engineering controls	Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. Explosion-proof general and local exhaust ventilation. Provide eyewash station and safety shower.
Individual protection measure	s, such as personal protective equipment
Eye/face protection	Avoid contact with eyes. Wear safety glasses with side shields (or goggles).
Skin protection Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Chemical respirator with organic vapor cartridge and full facepiece.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Observe any medical surveillance requirements. When using do not smoke. 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

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Appearance	
Physical state	Liquid.
Form	Liquid.
Color	Black.
Odor	Ammoniacal.
Odor threshold	Not available.
рН	8.5 - 9
Melting point/freezing point	Not available.
Initial boiling point and boiling range	211.1 °F (99.5 °C) estimated
Flash point	199.0 °F (92.8 °C) Open Cup
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or e	xplosive limits
Flammability limit - lower (%)	1.7 % estimated
Flammability limit - upper (%)	9.8 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	0.31 kPa
Vapor density	1
Relative density	1.1
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available. estimated
Decomposition temperature	Not available.
Viscosity	Not available.

Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

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	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known. At thermal decomposition temperatures, carbon monoxide and carbon dioxide.

11. Toxicological information

Information on likely routes of	f exposure
Inhalation	Harmful if inhaled.
Skin contact	Causes skin irritation.
	2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.
Eye contact	Causes serious eye irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute	toxicity
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Harmful by inhalation.

Product	Species	Test Results
ERTECH 8100		
<u>Acute</u>		
Dermal		
ATEmix		2868 mg/kg
Inhalation		
Vapor		
ATEmix		4.348 mg/l
Oral		
ATEmix		3846 mg/kg
Components	Species	Test Results
BUTAN-2-OL (CAS 78-92-2	2)	
<u>Acute</u>		
Oral		
LD50	Rat	6.48 g/kg
CALCIUM CARBONATE (CA	AS 471-34-1)	
<u>Acute</u>		
Oral		
LD50	Rat	6450 mg/kg
CARBON BLACK (CAS 133	3-86-4)	
<u>Acute</u>		
Oral		
LD50	Rat	> 8000 mg/kg

Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory or skin sensitization	on	
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected t	o 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	This product contains components that may cause cancer, however, after formation this product is encapsulated and the normal routes of exposure are unavailable.	
IARC Monographs. Overall	Evaluation of Carcinogenici	ty
2-BUTOXYETHANOL (CAS CARBON BLACK (CAS 133	33-86-4)	3 Not classifiable as to carcinogenicity to humans. 2B Possibly carcinogenic to humans.
OSHA Specifically Regulate	ed Substances (29 CFR 1910	.1001-1052)
•1	ogram (NTP) Report on Car	cinogens
Not listed.		
Reproductive toxicity	This product is not expected t	o cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	May cause respiratory irritation	າ.
Specific target organ toxicity - repeated exposure	Causes damage to organs thro	bugh prolonged or repeated exposure.
Aspiration hazard	Not an aspiration hazard.	
Chronic effects		brbed through the skin in toxic amounts if contact is repeated and e not been observed in humans.

12. Ecological information

otoxicity	Harmful t	o aquatic life.	
Product		Species	Test Results
ERTECH 8100			
Aquatic			
Crustacea	EC50	Daphnia	24786.666 mg/l, 48 hours estimated
Fish	LC50	Fish	2111.4812 mg/l, 96 hours estimated
Components		Species	Test Results
2-BUTOXYETHANOL (CAS 111-76-2)		
Aquatic			
Fish	LC50	Inland silverside (Menidia beryllina)	1250 mg/l, 96 hours
AMMONIUM HYDROXI	DE (CAS 1336-21-6	5)	
Aquatic			
Fish	LC50	Western mosquitofish (Gambusia affinis)	15 mg/l, 96 hours
BUTAN-2-OL (CAS 78-	92-2)		
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1859 - 7143 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	3380 - 3990 mg/l, 96 hours
CALCIUM CARBONATE	E (CAS 471-34-1)		
Aquatic			
Fish	LC50	Western mosquitofish (Gambusia affinis)	> 56000 mg/l, 96 hours
rsistence and degrad	ability No data is	s available on the degradability of any ingredien	ts in the mixture.
accumulative potent	-	<i>.</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Partition coefficient 2-BUTOXYETHANOL	t n-octanol / wat	er (log Kow) 0.83	

Partition coefficient n-oc BUTAN-2-OL	tanol / water (log Kow) 0.61
Mobility in soil	No data available.
Other adverse effects	The product contains volatile organic compounds which have a photochemical ozone creation potential.
13. Disposal considerat	ions
Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not incinerate sealed containers. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.

Hazardous waste codeNot applicable. The waste code should be assigned in discussion between the user, the producer
and the waste disposal company.Waste from residues /
unused productsDispose 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

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.

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 established. Annex II of MARPOL 73/78 and the IBC Code

15. Regulatory information

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

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

2-BUTOXYETHANOL (CAS 111-76-2)	Listed.
AMMONIUM HYDROXIDE (CAS 1336-21-6)	Listed.
BUTAN-2-OL (CAS 78-92-2)	Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

Classified hazard categories	Flammable (gases, aerosols, liquids, or solids) Acute toxicity (any route of exposure)
	Skin corrosion or irritation
	Serious eye damage or eye irritation
	Carcinogenicity
	Specific target organ toxicity (single or repeated exposure) Hazard not otherwise classified (HNOC)

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.	
2-BUTOXYETHANOL	111-76-2	0 - 40	

Chemical name		CAS number	% by wt.	
AMMONIUM HYDROXI	DE	1336-21-6	< 1	
BUTAN-2-OL		78-92-2	5 - < 10	
ther federal regulations				
Clean Air Act (CAA) Sec	tion 112 Hazardous	Air Pollutants (HAPs) Lis	t	
Not regulated.				
Clean Air Act (CAA) Sec Not regulated.	tion 112(r) Accidenta	al Release Prevention (4	0 CFR 68.130)	
Safe Drinking Water Act (SDWA)	t Not regulated.			
S state regulations				
California Proposition 6	5			
WARNING:		e you to CARBON BLACK, wation go to www.P65Warr		e of California to cause
California Propositi	on 65 - CRT: Listed d	ate/Carcinogenic substa	ance	
CARBON BLACK (CAS 1333-86-4)	Listed: Februa	ary 21, 2003	
US. California. Cand 69502.3, subd. (a))		. Safer Consumer Produ	cts Regulations (Cal. Co	de Regs, tit. 22,
2-BUTOXYETHAN CARBON BLACK (OL (CAS 111-76-2) CAS 1333-86-4)			
nternational Inventories				
Country(s) or region	Inventory name			On inventory (yes/no)*
Australia	Australian Invento	ry of Chemical Substances	(AICS)	Yes
Canada	Domestic Substand	ces List (DSL)		Yes
Canada	Non-Domestic Sub	stances List (NDSL)		No
China	Inventory of Existi		China (IECCC)	
Ci il iu		ng Chemical Substances in		Yes
Europe	European Inventor (EINECS)	ng Chemical Substances in y of Existing Commercial C		Yes No
	(EINECS)	-	hemical Substances	
Europe	(EINECS) European List of N	y of Existing Commercial C	hemical Substances s (ELINCS)	No
Europe	(EINECS) European List of N	y of Existing Commercial C otified Chemical Substance ng and New Chemical Subs	hemical Substances s (ELINCS)	No

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Philippines

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

*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).

Philippine Inventory of Chemicals and Chemical Substances

Taiwan Chemical Substance Inventory (TCSI)

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

(PICCS)

Issue date	11-14-2018
Version #	01
NFPA ratings	Health: 2 Flammability: 1 Instability: 0
Disclaimer	Ergon 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

Yes

Yes

Yes