SAFETY DATA SHEET

1. Identification

Product identifier	**Ertech™ 8230**
Other means of identification	None.
Recommended use	Not 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
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	Not classified.	
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Sensitization, skin	Category 1
	Reproductive toxicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	

Label elements

Signal word	Warning
Hazard statement	Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. May cause drowsiness or dizziness.

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. Avoid breathing dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.
Response	IF ON SKIN: Wash with plenty of water. Specific treatment (see this label). If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. 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. IF exposed or concerned: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
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	%
ETHYLENE GLYCOL MONOBUTYL ETHER		111-76-2	5 - 10
N-BUTANOL		71-36-3	1 - 5
AMMONIA		7664-41-7	<1
COBALT NEODECANOATE		27253-31-2	<1
Other components below reportable levels			88.5

4. First-aid measures

Inhalation	Move to fresh air. If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Perform artificial respiration if breathing has stopped. Get medical attention immediately.
Skin contact	Remove residue using industrial grade hand cleaner. Wash skin with plenty of warm water and mild soap for at least 15 minutes. Do not use cold water. Remove contaminated clothing and wash before reusing. If irritation persists repeat the washing procedure. Seek medical attention.
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.
Ingestion	Do not induce vomiting. Immediately give large quantities of water to drink. Provide fresh air, warmth and rest, preferably in comfortable upright sitting position. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration.
Most important symptoms/effects, acute and delayed	Inhalation of vapors in high concentration may cause irritation of respiratory system. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Defatting of the skin. Contact may cause redness, burning, drying, and cracking of the skin, and skin damage. Gastrointestinal tract irritation with possible nausea, vomiting, and diarrhea.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Carbon dioxide (CO2). Dry chemical powder. Water spray.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Carbon oxides.
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	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Wear suitable protective equipment. Evacuate area and fight fire from a safe distance.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch or walk through spilled material. Ensure adequate ventilation. Avoid breathing mist/vapor. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Ventilate area and avoid breathing vapors or mist. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch or walk through spilled material. 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. Absorb in vermiculite, dry sand or earth and place into containers. 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. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Avoid discharge into drains, water courses or onto the ground. Do not contaminate water.

7. Handling and storage

Precautions for safe handling

Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin. Avoid contact with eyes. Use non-sparking hand tools and explosion-proof electrical equipment. Take precautionary measures against static discharges. Protect containers from physical damage; do not drag, roll, slide, or drop. Avoid release to the environment.

Conditions for safe storage, including any incompatibilities

Store in tightly closed container. Store in a cool place in original container and protect from sunlight. Store locked up. 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 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
AMMONIA (CAS 7664-41-7)	PEL	35 mg/m3
		50 ppm
ETHYLENE GLYCOL MONOBUTYL ETHER (CAS 111-76-2)	PEL	240 mg/m3
		50 ppm
N-BUTANOL (CAS 71-36-3)	PEL	300 mg/m3
		100 ppm

US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value	Form
AMMONIA (CAS 7664-41-7)	STEL	35 ppm	
	TWA	25 ppm	
COBALT NEODECANOATE (CAS 27253-31-2)	TWA	0.02 mg/m3	Inhalable fraction.
ETHYLENE GLYCOL MONOBUTYL ETHER (CAS 111-76-2)	TWA	20 ppm	
N-BUTANOL (CAS 71-36-3)	TWA	20 ppm	

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

Components	Type	Value
AMMONIA (CAS 7664-41-7)	IDLH	15 %
		300 ppm
ETHYLENE GLYCOL MONOBUTYL ETHER (CAS 111-76-2)	IDLH	1.1 %
		700 ppm

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

Components	Type	Value
N-BUTANOL (CAS 71-36-3)	IDLH	1.4 %
		1400 ppm

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

Components	Type	Value
AMMONIA (CAS 7664-41-7)	STEL	27 mg/m3
		35 ppm
	TWA	18 mg/m3
		25 ppm
ETHYLENE GLYCOL MONOBUTYL ETHER (CAS 111-76-2)	TWA	24 mg/m3
		5 ppm
N-BUTANOL (CAS 71-36-3)	Ceiling	150 mg/m3
		50 ppm

Biological limit values

ACGIH Biological Exposure Indices (BEI)

Components	Value	Determinant	Specimen	Sampling Time
COBALT NEODECANOATE (CAS 27253-31-2)	15 µg/l	Cobalt	Urine	*
ETHYLENE GLYCOL MONOBUTYL ETHER (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

ETHYLENE GLYCOL MONOBUTYL ETHER (CAS 111-76-2)	Can be absorbed through the skin.
N-BUTANOL (CAS 71-36-3)	Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

ETHYLENE GLYCOL MONOBUTYL ETHER (CAS 111-76-2)	Skin designation applies.
N-BUTANOL (CAS 71-36-3)	Skin designation applies.

US - Tennessee OELs: Skin designation

ETHYLENE GLYCOL MONOBUTYL ETHER (CAS 111-76-2)	Can be absorbed through the skin.
N-BUTANOL (CAS 71-36-3)	Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

ETHYLENE GLYCOL MONOBUTYL ETHER (CAS 111-76-2)	Can be absorbed through the skin.
N-BUTANOL (CAS 71-36-3)	Can be absorbed through the skin.

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

ETHYLENE GLYCOL MONOBUTYL ETHER (CAS 111-76-2)	Can be absorbed through the skin.

Appropriate engineering controls

Provide adequate ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Attempts should be made to eliminate all contact with skin and eyes, and to limit inhalation exposure. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles). If risk of splashing, wear safety goggles or face shield.

Skin protection

Hand protection

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

Other

Wear suitable protective clothing.

Respiratory protection

Use an organic vapor mask under normal conditions. Use an organic vapor respirator for concentrations exceeding the Occupational Exposure Limit.

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	
Physical state	Liquid.
Form	Liquid.
Color	Not available.
Odor	Ether-like.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
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	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Percent volatile	60 % w/w
Specific gravity	1.182 at 25°C (77°F)
VOC	<15 g/L

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	Heat, flames and sparks. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong acids, alkalis and oxidizing agents. Caustics.
Hazardous decomposition products	Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.

Eye contact Causes serious eye irritation.

Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with skin or eyes may cause temporary irritation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
AMMONIA (CAS 7664-41-7)		
Acute		
Oral		
LD50	Rat	350 mg/kg
ETHYLENE GLYCOL MONOBUTYL ETHER (CAS 111-76-2)		
Acute		
Dermal		
LD50	Rabbit	400 mg/kg
Oral		
LD50	Rat	470 mg/kg
N-BUTANOL (CAS 71-36-3)		
Acute		
Dermal		
LD50	Rabbit	3400 mg/kg
Oral		
LD50	Rat	0.79 - 4.36 g/kg

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

ACGIH sensitization

Cobalt and inorganic compounds, inhalable fraction, as Co (CAS 27253-31-2)	Dermal sensitization
	Respiratory sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization May cause an allergic skin reaction.

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

Carcinogenicity

IARC Monographs. Overall Evaluation of Carcinogenicity

ETHYLENE GLYCOL MONOBUTYL ETHER (CAS 111-76-2) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

COBALT NEODECANOATE (CAS 27253-31-2) Reasonably Anticipated to be a Human Carcinogen.

Reproductive toxicity Suspected of damaging fertility or the unborn child.

Specific target organ toxicity - single exposure May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful. May be harmful if absorbed through skin. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product		Species	Test Results
Ertech™ 8230			
Aquatic			
Acute			
Crustacea	EC50	Daphnia	63233.332 mg/l, 48 hours estimated
Fish	LC50	Fish	73.976 mg/l, 96 hours estimated

Components		Species	Test Results
AMMONIA (CAS 7664-41-7)			
Aquatic			
Acute			
Fish	LC50	Silver carp (Hypophthalmichthys molitrix)	0.38 mg/l, 96 hours
ETHYLENE GLYCOL MONOBUTYL ETHER (CAS 111-76-2)			
Aquatic			
Acute			
Fish	LC50	Inland silverside (Menidia beryllina)	1250 mg/l, 96 hours
N-BUTANOL (CAS 71-36-3)			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	1897 - 2072 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	100 - 500 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

AMMONIA	-2.66
ETHYLENE GLYCOL MONOBUTYL ETHER	0.83
N-BUTANOL	0.88

Mobility in soil No data available.

Other adverse effects Not available.

13. Disposal considerations

Disposal instructions Dispose of this material and its container to hazardous or special waste collection point. Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Do not incinerate sealed containers.

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.

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.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

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)

AMMONIA (CAS 7664-41-7)	Listed.
COBALT NEODECANOATE (CAS 27253-31-2)	Listed.
ETHYLENE GLYCOL MONOBUTYL ETHER (CAS 111-76-2)	Listed.
N-BUTANOL (CAS 71-36-3)	Listed.

SARA 304 Emergency release notification

Ammonia; Ammonia (anhydrous) (CAS 7664-41-7)	100 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)
AMMONIA	7664-41-7	100	500		

SARA 311/312 Hazardous chemical Yes

Classified hazard categories
Skin corrosion or irritation
Serious eye damage or eye irritation
Respiratory or skin sensitization
Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	5 - 10
N-BUTANOL	71-36-3	1 - 5

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

COBALT NEODECANOATE (CAS 27253-31-2)

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

AMMONIA (CAS 7664-41-7)

Safe Drinking Water Act (SDWA) Contains component(s) regulated under the Safe Drinking Water Act.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

N-BUTANOL (CAS 71-36-3)	Low priority

US state regulations

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

AMMONIA (CAS 7664-41-7)
COBALT NEODECANOATE (CAS 27253-31-2)
ETHYLENE GLYCOL MONOBUTYL ETHER (CAS 111-76-2)
N-BUTANOL (CAS 71-36-3)

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

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 07-11-2024

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.