

1. Identification

Product identifier	FLEXJOINT™ U500 JOINT SEALANT PART A
Other means of identification	None.
Recommended use	Joint sealant for expansion joints.
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	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Sensitization, respiratory	Category 1
	Sensitization, skin	Category 1
	Carcinogenicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 2
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	

Label elements**Signal word** Danger**Hazard statement** Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention

Avoid breathing dust/fume/gas/mist/vapors/spray. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required. In case of inadequate ventilation wear respiratory protection.

Response

Call a POISON CENTER or doctor/physician if you feel unwell. Specific treatment see Section 4 of this SDS. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of soap and water. 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 exposed or concerned: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. Get medical advice/attention if you feel unwell.

Storage

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

Disposal

Dispose of waste and residues in accordance with local authority requirements.

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	%
ISOCYANATES, REACTION PRODUCT OF POLYOL WITH MEHTYLENEDIPHENYL DIISOCYANATE		9048-57-1	30 - 60
2,4'-DIPHENYLMETHANE DIISOCYANATE (MDI)		5873-54-1	10 - 30
4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI)		101-68-8	10 - 30
PROPYLENE CARBONATE		108-32-7	5 - 10
POLYMERIC DIPHENYLMETHANE DIISOCYANATE (pMDI)		9016-87-9	3 - 7
Other components below reportable levels			12.5

4. First-aid measures

Inhalation

If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Move to fresh air. 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 physician or poison control center immediately. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Skin contact

Remove contaminated clothing. Remove and isolate contaminated clothing and shoes. Immediately flush skin with plenty of water. Wash off with soap and plenty of water. Call a physician or poison control center immediately. For minor skin contact, avoid spreading material on unaffected skin. If skin irritation occurs: Get medical advice/attention. Get medical attention if irritation develops and persists. Wash clothing separately before reuse. An MDI skin decontamination study demonstrated that cleaning very soon after exposure is important, and that a polyglycol-based skin cleanser or corn oil may be more effective than soap and water.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately. Get medical attention if irritation develops and persists.

Ingestion

Never give anything by mouth to a victim who is unconscious or is having convulsions. Rinse mouth thoroughly. 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. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Most important symptoms/effects, acute and delayed	Irritation of eyes and mucous membranes. Prolonged exposure may cause chronic effects. Irritant effects. May cause allergic respiratory reaction. May cause allergic skin reaction.
Indication of immediate medical attention and special treatment needed	In case of shortness of breath, give oxygen. Oxygen, if needed. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. IF exposed or concerned: Get medical advice/attention. In case of shortness of breath, give oxygen. Keep victim under observation. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Water spray mist or foam.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Use a water spray to cool fire-exposed containers.
Special protective equipment and precautions for firefighters	Wear suitable protective equipment. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk. Do not get water inside container.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material. Ventilate closed spaces before entering them. Ensure adequate ventilation. Avoid inhalation of vapors or mists. Avoid skin contact and inhalation of vapors during disposal of spills.
Methods and materials for containment and cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with DRY earth, DRY sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain. Do not get water on spilled substance or inside containers. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Prevent further leakage or spillage if safe to do so. No special environmental precautions required. Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	In case of insufficient ventilation, wear suitable respiratory equipment. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. 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. Use personal protective equipment as required. Wash hands thoroughly after handling. Do not empty into drains. Avoid heat, sparks, open flames and other ignition sources. Do not ingest.
Conditions for safe storage, including any incompatibilities	Store in a well-ventilated place. Keep container tightly closed. Do not store in direct sunlight.

8. Exposure controls/personal protection

Occupational exposure limits

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

Components	Type	Value
4,4'-DIPHENYLMETHANE	Ceiling	0.2 mg/m3
DIISOCYANATE (MDI) (CAS 101-68-8)		0.02 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI) (CAS 101-68-8)	TWA	0.005 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI) (CAS 101-68-8)	Ceiling	0.2 mg/m3
	TWA	0.02 ppm
		0.05 mg/m3
		0.005 ppm

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	Avoid contact with eyes. Chemical goggles are recommended. Eye wash fountain is recommended. Wear chemical splash goggles and face shield when eye and face contact is possible due to splashing or spraying of material.
Skin protection	
Hand protection	Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves. Nitrile or butyl rubber gloves are recommended. Neoprene gloves. Impervious gloves.
Other	Avoid contact with the skin. Chemical resistant gloves. Wear suitable protective clothing.
Respiratory protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Thermal hazards	Not available.
General hygiene considerations	Do not get in eyes. Do not get this material in contact with skin. Wash hands after handling. Keep away from food and drink. Contaminated work clothing should not be allowed out of the workplace. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance	Clear to pale yellow.
Physical state	Liquid.
Form	Liquid.
Color	Clear to yellow
Odor	Mild Odor
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	467.6 °F (242 °C)
Flash point	226.4 °F (108.0 °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	Not available.
Relative density	Not available.

Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Specific gravity	1 - 1.2

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	Avoid temperatures above 450 deg F (230 deg C), potential violent decomposition may occur. Avoid contact with water, as material reacts with water, releasing carbon dioxide which can cause rapid pressure buildup and rupture of closed containers.
Incompatible materials	Alcohols. Amines. Product may react with strong acids, bases and oxidizing agents. Avoid unintended contact with amines, alcohols, water, moist air and metals such as aluminum, brass, copper, tin, zinc and galvanized metals.
Hazardous decomposition products	Sulfur oxides. Thermal decomposition in the presence of air may yield carbon monoxide, carbon dioxide, phenolics, ammonia, nitrogen oxides, isocyanates, hydrogen cyanide and other unidentified toxic and/or irritating compounds.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause drowsiness and dizziness. May cause irritation to the respiratory system.
Skin contact	Irritating to skin.
Eye contact	Causes serious eye irritation.
Ingestion	Not classified. May cause discomfort if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics Irritating to eyes, respiratory system and skin. Irritating to mouth, throat, and stomach. Irritant effects.

Information on toxicological effects

Acute toxicity Not applicable.

Components	Species	Test Results
4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI) (CAS 101-68-8)		
Acute		
Inhalation		
LC50	-	369 mg/m3, 4 Hours

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

Skin corrosion/irritation Irritating to skin.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization May cause sensitization by inhalation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitization May cause sensitization by skin contact. May cause an allergic skin reaction. 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. Not available.

Carcinogenicity Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

2,4'-DIPHENYLMETHANE DIISOCYANATE (MDI) (CAS 5873-54-1)	3 Not classifiable as to carcinogenicity to humans.
4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI) (CAS 101-68-8)	3 Not classifiable as to carcinogenicity to humans.
POLYMERIC DIPHENYLMETHANE DIISOCYANATE (pMDI) (CAS 9016-87-9)	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

Not listed.

Reproductive toxicity	Not available. Not classified.
Specific target organ toxicity - single exposure	Respiratory tract irritation. May cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure	Respiratory system. May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not available.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity	Not expected to be harmful to aquatic organisms.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	Not available.
Partition coefficient n-octanol / water (log Kow)	
4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI)	5.22
Mobility in soil	Not available.
Other adverse effects	Not available.

13. Disposal considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations. Do not discharge into drains, water courses or onto the ground.
Waste from residues / unused products	Dispose of in accordance with local regulations. 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 Annex II of MARPOL 73/78 and the IBC Code Not available.

General information If shipped below RQ, this product is not subject to hazardous materials 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.
All components are on the U.S. EPA TSCA Inventory List.

Toxic Substances Control Act (TSCA)

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

Not regulated.

TSCA Chemical Action Plans, Chemicals of Concern

2,4'-DIPHENYLMETHANE DIISOCYANATE (MDI) (CAS 5873-54-1)	Methylene Diphenyl Diisocyanate (MDI) And Related Compounds Action Plan [RIN 2070-ZA15]
4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI) (CAS 101-68-8)	Methylene Diphenyl Diisocyanate (MDI) And Related Compounds Action Plan [RIN 2070-ZA15]
POLYMERIC DIPHENYLMETHANE DIISOCYANATE (pMDI) (CAS 9016-87-9)	Methylene Diphenyl Diisocyanate (MDI) And Related Compounds Action Plan [RIN 2070-ZA15]

CERCLA Hazardous Substance List (40 CFR 302.4)

4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI) (CAS 101-68-8)	Listed.
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SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Classified hazard categories	Yes Acute toxicity (any route of exposure) Skin corrosion or irritation Serious eye damage or eye irritation Respiratory or skin sensitization Carcinogenicity Specific target organ toxicity (single or repeated exposure)
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SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI)	101-68-8	10 - 30
POLYMERIC DIPHENYLMETHANE DIISOCYANATE (pMDI)	9016-87-9	3 - 7

Other federal regulations

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

4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI) (CAS 101-68-8)

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

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

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

2,4'-DIPHENYLMETHANE DIISOCYANATE (MDI) (CAS 5873-54-1)
4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI) (CAS 101-68-8)
POLYMERIC DIPHENYLMETHANE DIISOCYANATE (pMDI) (CAS 9016-87-9)

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

Country(s) or region	Inventory name	On inventory (yes/no)*
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	12-15-2022
Version #	01
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.
Revision information	Hazard(s) identification: Response Hazard(s) identification: Prevention Hazard(s) identification: Disposal Handling and storage: Precautions for safe handling Transport Information: Material Transportation Information Regulatory information: US state regulations GHS: Classification