## SAFETY DATA SHEET



#### 1. Identification

**Product identifier FURALAC™** Resin

Other means of identification None.

Recommended use Not available. **Recommended restrictions** None known.

Manufacturer/Importer/Supplier/Distributor information

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

**Address** 2829 Lakeland Drive Jackson, MS 39232

After hours telephone

number

**Normal work hours** telephone number

1-877-982-7667

1-800-222-7122

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, oral Category 4

> Acute toxicity, dermal Category 4 Acute toxicity, inhalation Category 3 Serious eye damage/eye irritation Category 2 Carcinogenicity Category 2

Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

Category 2

Specific target organ toxicity, repeated

exposure

**Environmental hazards** Not classified. **OSHA** defined hazards Not classified.

**Label elements** 



Signal word Danger

**Hazard statement** Harmful if swallowed. Toxic if inhaled. Harmful in contact with skin. Causes serious eye irritation.

Suspected of causing cancer. May cause respiratory irritation. May cause damage to organs

through prolonged or repeated exposure.

**Precautionary statement Prevention** 

Obtain special instructions before use. Do not handle until all safety precautions have been read

and understood. Avoid breathing dust/fume/gas/mist/vapors/spray. Wear protective

gloves/protective clothing/eye protection/face protection. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling.

Material name: FURALAC™ Resin SDS US **Response** IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. 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. Call a POISON CENTER or doctor/physician. 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. Specific treatment (see this label). Take off

contaminated clothing and wash it before reuse. Get medical advice/attention if you feel unwell.

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**Storage** 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	%
FURAN RESIN		25153-36-0	60 - 80
FURFURYL ALCOHOL		98-00-0	20 - 40
WATER		7732-18-5	10 - 20

#### 4. First-aid measures

**Inhalation** Move to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel.

Do not use mouth-to-mouth method if victim inhaled the substance. Get medical attention

immediately.

**Skin contact** Immediately flush with plenty of water for at least 15 minutes while removing contaminated

clothing and shoes. Get medical attention if irritation develops and persists. Wash contaminated

clothing before reuse.

**Eye contact** Do not rub eyes. 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. Do NOT induce vomiting. Never give anything by mouth to a victim who is

unconscious or is having convulsions. 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.

Call a physician or poison control center immediately.

Most important

symptoms/effects, acute and

delayed

Direct contact with eyes may cause temporary irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Burning sensation.

Indication of immediate medical attention and special

treatment needed

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

**General information** Get medical attention if symptoms occur. Ensure that medical personnel are aware of the

material(s) involved, and take precautions to protect themselves. Show this safety data sheet to

the doctor in attendance.

## 5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing

media

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

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. Carbon monoxide and carbon dioxide.

Hydrocarbons.

Special protective equipment and precautions for firefighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Firefighters should wear full protective clothing including self contained breathing apparatus. 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** No unusual fire or explosion hazards noted.

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#### 6. Accidental release measures

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). Do not breathe mist/vapors. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. 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

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up.

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. For waste disposal, see section 13 of the SDS. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container.

#### **Environmental precautions**

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

## 7. Handling and storage

Precautions for safe handling

Keep away from open flames, hot surfaces and sources of ignition. Do not reuse the empty container. Do not breathe gas/fumes/vapor/spray. Do not get in eyes, on skin, on clothing. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

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

Components	Туре	Value	
FURFURYL ALCOHOL (CAS 98-00-0)	PEL	200 mg/m3	
		50 ppm	
US. ACGIH Threshold Limit Valu	ies		
Components	Туре	Value	
FURFURYL ALCOHOL (CAS 98-00-0)	TWA	0.2 ppm	
US. NIOSH: Pocket Guide to Che	emical Hazards		
Components	Туре	Value	
FURFURYL ALCOHOL (CAS 98-00-0)	STEL	60 mg/m3	
		15 ppm	
	TWA	40 mg/m3	
		10 ppm	

**Biological limit values** 

No biological exposure limits noted for the ingredient(s).

**Exposure guidelines** 

**US - California OELs: Skin designation** 

FURFURYL ALCOHOL (CAS 98-00-0) Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies** 

FURFURYL ALCOHOL (CAS 98-00-0) Skin designation applies.

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**US - Tennessee OELs: Skin designation** 

FURFURYL ALCOHOL (CAS 98-00-0) Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation** 

FURFURYL ALCOHOL (CAS 98-00-0) Danger of cutaneous absorption

**US NIOSH Pocket Guide to Chemical Hazards: Skin designation** 

FURFURYL ALCOHOL (CAS 98-00-0) 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. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Wear safety glasses with side shields (or goggles). Eye/face protection

Skin protection

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

aloves.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Chemical resistant gloves.

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

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. Avoid contact with eyes. Avoid contact with skin. Avoid contact with clothing.

## 9. Physical and chemical properties

**Appearance** 

Color

**Physical state** Liquid. **Form** Liquid.

Odor Not available. Odor threshold Not available. Not available. Melting point/freezing point Not available. Initial boiling point and Not available.

boiling range

Not available.

Not available.

Flash point **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) Not available. **Partition coefficient** Not available.

(n-octanol/water)

**Auto-ignition temperature** Not available. Not available. **Decomposition temperature** Viscosity Not available.

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## 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

products

No dangerous reaction known under conditions of normal use.

**Conditions to avoid** Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the

flash point. Contact with incompatible materials.

**Incompatible materials** Product may react with strong acids, bases and oxidizing agents.

**Hazardous decomposition** 

)II

Irritating and/or toxic fumes and gases may be emitted upon the products decomposition. Carbon

dioxide. Carbon monoxide. Hydrocarbons.

## 11. Toxicological information

## Information on likely routes of exposure

**Inhalation** Toxic if inhaled. May cause irritation to the respiratory system.

Skin contactHarmful in contact with skin.Eye contactCauses serious eye irritation.IngestionHarmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics Causes serious eye irritation. May cause respiratory irritation. May cause redness and pain.

Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

#### Information on toxicological effects

**Acute toxicity** Harmful if swallowed. Toxic in contact with skin. Toxic if inhaled.

Components Species Test Results

FURFURYL ALCOHOL (CAS 98-00-0)

<u>Acute</u> Dermal

LD50 Rabbit 400 mg/kg

Oral

LD50 Rat 275 mg/kg

**Skin corrosion/irritation** May be irritating to the skin. **Serious eye damage/eye** Causes serious eye irritation.

irritation

Respiratory or skin sensitization

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** Prolonged skin contact may cause temporary irritation.

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

mutagenic or genotoxic.

**Carcinogenicity** Suspected of causing cancer.

## IARC Monographs. Overall Evaluation of Carcinogenicity

FURFURYL ALCOHOL (CAS 98-00-0) 2B Possibly carcinogenic 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**This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity

- single exposure

May cause respiratory irritation.

Specific target organ toxicity

- repeated exposure

May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

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<sup>\*</sup> Estimates for product may be based on additional component data not shown.

**Further information** Symptoms may be delayed.

12. Ecological information

**Ecotoxicity** Not expected to be harmful to aquatic organisms.

**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)

FURFURYL ALCOHOL 0.28

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

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

Dispose in accordance with all applicable regulations. Local disposal 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 / Dispose of in accordance with local regulations. Empty containers or liners may retain some unused products

product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Since emptied containers may retain product residue, follow label warnings even after container is Contaminated packaging

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

## 14. Transport information

DOT

**UN number** UN2874

**UN proper shipping name** Furfuryl Alcohol, Mixture

Transport hazard class(es) Class 6.1 **Subsidiary risk** 

Label(s) 6.1 Packing group TTT

Special precautions for

user

Special provisions IB3, T4, TP1

Packaging exceptions 153 Packaging non bulk 203 Packaging bulk 241

**IATA** 

**UN** number UN2874

**UN** proper shipping name Furfuryl Alcohol, Mixture

Transport hazard class(es)

Class 6.1 **Subsidiary risk Packing group** III **Environmental hazards** No. **ERG Code** 6L

Special precautions for

user

Read safety instructions, SDS and emergency procedures before handling.

Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo

aircraft

Allowed with restrictions.

Cargo aircraft only Allowed with restrictions.

**IMDG** 

**UN number** UN2874

**UN proper shipping name** Furfuryl Alcohol, Mixture

Transport hazard class(es)

Class 6.1 **Subsidiary risk** 

Material name: FURALAC™ Resin SDS US Packing group III

**Environmental hazards** 

Marine pollutant No. EmS F-A, S-A

Special precautions for

use

Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78

Not established.

and the IBC Code





IATA; IMDG



## 15. Regulatory information

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

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard,

All components of the mixture on the TSCA 8(b) inventory are designated

29 CFR 1910.1200.

CERCLA/SARA Hazardous Substances - Not applicable.

"active".

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

Not regulated.

**Toxic Substances Control Act (TSCA)** 

**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)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

**SARA 302 Extremely hazardous substance** 

Not listed.

SARA 311/312 Hazardous Yes

chemical

**Classified hazard** 

categories

Acute toxicity (any route of exposure) Serious eye damage or eye irritation

Carcinogenicity

Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Not regulated.

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#### 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)

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

FURFURYL ALCOHOL (CAS 98-00-0) Low priority

#### **US state regulations**

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

FURFURYL ALCOHOL (CAS 98-00-0)

#### **California Proposition 65**

WARNING: This product can expose you to FURFURYL ALCOHOL, which is known to the State of California to

cause cancer. For more information go to www.P65Warnings.ca.gov.

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

FURFURYL ALCOHOL (CAS 98-00-0) Listed: September 30, 2016

#### **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

<sup>\*</sup>A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

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

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

NFPA ratings Health: 3 Flammability: 0 Instability: 0

References **ACGIH** 

EPA: AQUIRE database

NLM: Hazardous Substances Data Base

US. IARC Monographs on Occupational Exposures to Chemical Agents

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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).

#### **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 quidance 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. 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.

**Revision information** 

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

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