

SAFETY DATA SHEET

1. Identification

Material name: Enviro-Dri® Field Membrane
Material: TBS731

Recommended use and restriction on use

Recommended use: Coatings
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

Tremco Barrier Solutions
6402 E. MAIN STREET
REYNOLDSBURG OH 43068
US

Contact person:	EH&S Department
Telephone:	216-292-5000
Emergency telephone number:	1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Germ Cell Mutagenicity	Category 1B
Carcinogenicity	Category 1B

Unknown toxicity - Health

Acute toxicity, oral	39.62 %
Acute toxicity, dermal	39.88 %
Acute toxicity, inhalation, vapor	100 %
Acute toxicity, inhalation, dust or mist	100 %

Environmental Hazards

Acute hazards to the aquatic environment	Category 3
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Unknown toxicity - Environment

Acute hazards to the aquatic environment	99.57 %
Chronic hazards to the aquatic environment	100 %

Label Elements

Hazard Symbol:



Signal Word:	Danger
Hazard Statement:	May cause genetic defects. May cause cancer. Harmful to aquatic life.
Precautionary Statements:	
Prevention:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.
Response:	If exposed or concerned: Get medical advice/attention.
Storage:	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.
Other hazards which do not result in GHS classification:	None.

3. Composition/information on ingredients
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Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Asphalt	8052-42-4	40 - 70%
Stoddard solvent (Mineral Spirits)	8052-41-3	3 - 7%
Potassium hydroxide	1310-58-3	0.1 - 1%
1,2,4-Trimethylbenzene	95-63-6	0.1 - 1%
Ammonium hydroxide	1336-21-6	0.1 - 1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Ingestion:	Call a POISON CENTER/doctor/...if you feel unwell. Rinse mouth.
Inhalation:	Move to fresh air.
Skin Contact:	Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.
Eye contact:	Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

Most important symptoms/effects, acute and delayed

Symptoms: May cause skin and eye irritation.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: 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

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: No data available.

Methods and material for containment and cleaning up: Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Store locked up.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
Asphalt - Inhalable fraction. - as benzene solubles	TWA	0.5 mg/m3	US. ACGIH Threshold Limit Values (2011)
Stoddard solvent (Mineral Spirits)	TWA	100 ppm	US. ACGIH Threshold Limit Values (2011)
	PEL	500 ppm 2,900 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Potassium hydroxide	Ceiling	2 mg/m3	US. ACGIH Threshold Limit Values (2011)
1,2,4-Trimethylbenzene	TWA	25 ppm	US. ACGIH Threshold Limit Values (2011)
	REL	25 ppm 125 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	TWA	25 ppm 125 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	25 ppm 125 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	AN ESL	25 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (07 2011)
	ST ESL	140 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	ST ESL	700 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	AN ESL	125 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (07 2011)
	TWA PEL	25 ppm 125 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (08 2010)
Ammonium hydroxide	STEL	35 ppm	US. ACGIH Threshold Limit Values (2011)
	TWA	25 ppm	US. ACGIH Threshold Limit Values (2011)
	PEL	50 ppm 35 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

Chemical name	type	Exposure Limit Values	Source
Asphalt - Aerosol, inhalable. - as benzene solubles	TWA	0.5 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Asphalt - Inhalable fraction. - as benzene solubles	TWA	0.5 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Asphalt - Fume.	TWA	5 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Stoddard solvent (Mineral Spirits)	STEL	580 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	290 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Stoddard solvent (Mineral Spirits)	TWA	100 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Stoddard solvent (Mineral Spirits)	TWA	100 ppm 525 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
1,2,4-Trimethylbenzene	TWA	25 ppm 123 mg/m ³	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
1,2,4-Trimethylbenzene	TWA	25 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
1,2,4-Trimethylbenzene	TWA	25 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
1,2,4-Trimethylbenzene	TWA	25 ppm 123 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)

Appropriate Engineering Controls

Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment

General information:	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances, such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.
Eye/face protection:	Wear safety glasses with side shields (or goggles).
Skin Protection	
Hand Protection:	Use suitable protective gloves if risk of skin contact.
Other:	Wear suitable protective clothing.
Respiratory Protection:	In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
Hygiene measures:	Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Brown
Odor:	Slight odor
Odor threshold:	No data available.
pH:	10.0 - 11.8
Melting point/freezing point:	-0.00 °C 32 °F
Initial boiling point and boiling range:	100 °C 212 °F
Flash Point:	> 100 °C > 212 °F
Evaporation rate:	Slower than Ether
Flammability (solid, gas):	No
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
Relative density:	0.98
Solubility(ies)	
Solubility in water:	Dispersible
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.

Decomposition temperature: No data available.
Viscosity: No data available.

10. Stability and reactivity

Reactivity: No data available.

Chemical Stability: Material is stable under normal conditions.

Possibility of hazardous reactions: No data available.

Conditions to avoid: Avoid heat or contamination.

Incompatible Materials: Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates).

Hazardous Decomposition Products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information**Information on likely routes of exposure**

Ingestion: May be ingested by accident. Ingestion may cause irritation and malaise.

Inhalation: In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.

Skin Contact: May be harmful in contact with skin. Causes mild skin irritation.

Eye contact: Eye contact is possible and should be avoided.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral
Product: No data available.

Dermal
Product: ATEmix: 2,905.08 mg/kg

Inhalation
Product: No data available.

Specified substance(s):
Asphalt LC 50 (Rat, 4.5 h): > 94.4 mg/m³

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

Asphalt	in vivo (Rabbit): Experimental result, Key study
Potassium hydroxide	in vivo (Rabbit): Experimental result, Weight of Evidence study
1,2,4-Trimethylbenzene	in vivo (Rabbit): Read-across from supporting substance (structural analogue or surrogate), Key study

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

Asphalt	in vivo (Rabbit, 24 hrs): Not irritating
Stoddard solvent (Mineral Spirits)	Irritating
Potassium hydroxide	in vivo (Rabbit, 24 hrs): Corrosive KOH 5%
1,2,4-Trimethylbenzene	in vivo (Rabbit, 30 min): Not irritating
Ammonium hydroxide	Severely Irritating

Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity

Product: May cause cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Asphalt	Overall evaluation: Possibly carcinogenic to humans.
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US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro
Product: No data available.

In vivo
Product: No data available.

Reproductive toxicity
Product: No data available.

Specific Target Organ Toxicity - Single Exposure
Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure
Product: No data available.

Aspiration Hazard
Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: No data available.

Specified substance(s):
Potassium hydroxide LC 50 (Western mosquitofish (*Gambusia affinis*), 96 h): 80 mg/l Mortality

1,2,4-Trimethylbenzene LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 7.19 - 8.28 mg/l Mortality
LC 50 (Various, 96 h): 3.41 mg/l QSAR QSAR, Supporting study
LC 50 (*Oryzias latipes*, 48 h): 18 mg/l Experimental result, Supporting study
LC 50 (*Oncorhynchus mykiss*): 9.22 mg/l Not specified, Not specified
LC 50 (*Pimephales promelas*, 96 h): 7.72 mg/l Experimental result, Key study

Ammonium hydroxide LC 50 (Western mosquitofish (*Gambusia affinis*), 96 h): 15 mg/l Mortality

Aquatic Invertebrates
Product: No data available.

Specified substance(s):
1,2,4-Trimethylbenzene LC 50 (*Scud* (*Elasmopus pectinicus*), 24 h): 4.89 - 5.62 mg/l Mortality
LC 50 (*Artemia* sp., 24 h): 12 mg/l Experimental result, Supporting study

LC 50 (Artemia sp., 48 h): 3.6 mg/l Experimental result, Supporting study
 LC 50 (Americamysis bahia, 96 h): +/- +/- 2 mg/l Not specified, Not specified
 LC 50 (Daphnia sp., 48 h): 2.446 mg/l QSAR QSAR, Supporting study

Ammonium hydroxide LC 50 (Water flea (Daphnia magna), 25 h): 60 mg/l Mortality
 LC 50 (Water flea (Ceriodaphnia dubia), 48 h): > 0 - 10 mg/l Mortality

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Asphalt NOAEL (Oncorhynchus mykiss, 28 d): >= 1,000 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study
 LL 50 (Oncorhynchus mykiss, 28 d): > 1,000 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

BOD/COD Ratio

Product: No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

Product: No data available.

Specified substance(s):

1,2,4-Trimethylbenzene Pimephales promelas, Bioconcentration Factor (BCF): 243 Aquatic sediment QSAR, Key study
 Cyprinus carpio, Bioconcentration Factor (BCF): 31 - 207 Aquatic sediment Experimental result, Supporting study
 Cyprinus carpio, Bioconcentration Factor (BCF): 33 - < 275 Aquatic sediment Experimental result, Supporting study

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s):

Stoddard solvent (Mineral Spirits) Log Kow: 3.16 - 7.15

Mobility in Soil: No data available.

Other Adverse Effects: Harmful to aquatic organisms.

13. Disposal considerations

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG:

Not Regulated

CFR / DOT:

Not Regulated

IMDG:

Not Regulated

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

<u>Chemical Identity</u>	<u>OSHA hazard(s)</u>
Acrylonitrile	Liver Central nervous system Flammability Eye irritation Skin irritation Skin sensitization Respiratory irritation Cancer Acute toxicity

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Asphalt	100 lbs.
Potassium hydroxide	1000 lbs.
Ammonium hydroxide	1000 lbs.
Hydrogen sulfide	100 lbs.
Ethyl Acrylate	1000 lbs.
Acrylamide	5000 lbs.
Acrylonitrile	100 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance

<u>Chemical Identity</u>	<u>Reportable quantity</u>	<u>Threshold Planning Quantity</u>
Hydrogen sulfide	100 lbs.	500 lbs.
Acrylamide	5000 lbs.	- - -
Acrylonitrile	100 lbs.	10000 lbs.

SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Asphalt	100 lbs.
Potassium hydroxide	1000 lbs.
Ammonium hydroxide	1000 lbs.
Hydrogen sulfide	100 lbs.
Ethyl Acrylate	1000 lbs.
Acrylamide	5000 lbs.
Acrylonitrile	100 lbs.

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Hydrogen sulfide	500lbs
Acrylamide	500lbs
Acrylonitrile	500lbs
Asphalt	500 lbs
Stoddard solvent (Mineral Spirits)	500 lbs
Potassium hydroxide	500 lbs
1,2,4-Trimethylbenzene	500 lbs
Ammonium hydroxide	500 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

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

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Hydrogen sulfide	10000 lbs
Acrylonitrile	20000 lbs

US State Regulations

US. California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity

Asphalt
Stoddard solvent (Mineral Spirits)

US. Massachusetts RTK - Substance List

Chemical Identity

Asphalt
Stoddard solvent (Mineral Spirits)
Hydrogen sulfide
Ethyl Acrylate
Acrylamide
Acrylonitrile

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Asphalt
Stoddard solvent (Mineral Spirits)

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

Other Regulations:

Regulatory VOC (less water and exempt solvent):	66 g/l
VOC Method 310:	4.43 %

Inventory Status:

Australia AICS:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	One or more components in this product are not listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.

Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.

16. Other information, including date of preparation or last revision
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Revision Date:	08/29/2016
Version #:	1.1
Further Information:	No data available.
Disclaimer:	For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.