

1. IDENTIFICATION OF SUBSTANCE

PRODUCT FORM	Mixture
PRODUCT NAME	Rugged Coatings MaAF
SUPPLIER IDENTIFICATION	Rugged Coatings 3217 Messer Airport Hwy Birmingham, AL 35222
EMERGENCY TELEPHONE	(800) 424-9300 Chemtrec

2. HAZARD(S) IDENTIFICATION

GHS RATINGS:

Skin Corr	1C	H313
Muta	2	H341
Aquatic Chronic	1	H410

GHS HAZARDS

H302	Suspected of causing cancer
H317	May cause an allergic skin reaction
H320	Causes eye irritation
H413	May cause long lasting harmful effects to aquatic life

GHS PRECAUTIONS

P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood
P264	Wash hands, forearms and face thoroughly after handling
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331	If swallowed: rinse mouth. Do NOT induce vomiting
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340	If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313	If exposed or concerned: Get medical advice/attention
P310	Immediately call a doctor, a POISON CENTER
P321	Specific treatment (see eye protection, protective gloves, a POISON CENTER, a doctor on this label)
P363	Wash contaminated clothing before reuse
P391	Collect Spillings
P501	Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste

LABEL ELEMENTS

PICTOGRAM



SIGNAL WORD

Warning

3. COMPOSITION/INFORMATION ON INGREDIENTS

MIXTURES

Water (CAS No) 7732-18-5	22 - 32%
calcium carbonate (CAS No) 471-34-1	24 - 32%
latex, liquid, sythetic	13- 18%
1,2-propanediol (CAS No) 57-55-6	0.5- 0.8%
titanium(IV) oxide (CAS No) 13463-67-7	8- 12%
2,2,4-trimethyl-1,3-pentenediol monoisobutyrate (CAS No) 25265-77-4	0.3 - 0.6%
polyethylenes (CAS No) 9002-88-4	0.2 - 0.5%
zinc oxide (CAS No) 1314-13-2	0.3 - 0.6%

4. FIRST-AID MEASURES

GENERAL INFO	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
INHALATION	Allow victim to breathe fresh air.
SKIN CONTACT	: Wash with water and soap. Rinse with water.
EYE CONTACT	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persist. Direct contact with the eyes is likely to be irritating.
INGESTION	Do not induce vomiting. Drink plenty of water. Rinse mouth. Get medical advice/attention.

5. FIRE-FIGHTING MEASURES

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Reactivity	No data available.
Fire hazard	Non combustible. Not Flammable

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

For non-emergency personnel	Avoid contact with eyes.
For emergency responders	Protective equipment : Equip cleanup crew with proper protection. Emergency procedures : Ventilate area.

ENVIRONMENTAL PRECAUTIONS

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

For containment	Collect spillage.
Methods for cleaning up	Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Precautions for safe handling	Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Do not breathe spray. Obtain special instructions before use. Use personal protective equipment as required. Do not handle until all safety precautions have been read and understood.
Hygiene measures	Wash Always wash hands after handling the product thoroughly after handling. Wash contaminated clothing before reuse.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Technical measures	Comply with applicable regulations.
Storage conditions	Keep container closed when not in use.
Incompatible products	Strong bases. Strong acids.
Storage temperature	4-38°C
Storage area	keep only in the original container. Protect against frost.
Special rules on packaging	Keep only in original container. meet the legal requirements.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CHEMICAL NAME / CAS NO.	OSHA EXPOSURE LIMITS	ACGIH EXPOSURE LIMITS	OTHER EXPOSURE LIMITS
Water (7732-18-5)	Not Established	Not Established	Not Established
calcium carbonate (471-34-1)	Not Established	Not Established	Not Established
titanium(IV) oxide (13463-67-7)	Not Established	Not Established	Not Established
zinc oxide (1314-13-2)	Not Established	Not Established	Not Established
1,2-propanediol (57-55-6)	Not Established	Not Established	Not Established
latex,liquid,synthetic	Not Established	Not Established	Not Established
polyethylenes (9002-88-4)	Not Established	Not Established	Not Established
2,2,4-trimethyl-1,3-pentanediol monoisobutyrate (25265-77-4)	Not Established	Not Established	Not Established

EXPOSURE CONTROLS

APPROPRIATE ENGINEERING CONTROLS

PERSONAL PROTECTIVE EQUIPMENT	Avoid all unnecessary exposure.
HAND PROTECTION	Wear protective gloves.
EYE PROTECTION	Face shield
SKIN & BODY PROTECTION	Wear suitable protective clothing
ENVIRONMENTAL EXPOSURE CONTROLS	Avoid release to the environment.
OTHER INFORMATION	Do not eat, drink or smoke during use.

9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Liquid
Color	Colorless
Freezing point	<0°C
Boiling Point	>100°C
Density	10.8 - 11.4 lb/gal
Solubility	Water: ~ 100 %

10. STABILITY AND REACTIVITY

REACTIVITY

No data available.

CHEMICAL STABILITY

Not established.

POSSIBILITY OF HAZARDOUS REACTIONS

Not established.

INCOMPATIBLE MATERIALS

Strong acids. Strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Corrosive vapours.

11. TOXICOLOGICAL INFORMATION

CALCIUM CARBONATE (471-34-1)

LD50 Dermal Rat	6450 mg/kg (Rat; OECD 420: Acute Oral toxicity – Acute Toxic Class Method; Literature study; >2000 mg/kg; Rat; Experimental value)
LD50 Dermal Rat	> 2000 mg/kg bodyweight (Rat; Experimental value; Equivalent or similar to OECD 402)
LC50 inhalation rat (mg/l)	> 3 mg/l/4h (Rat; Experimental value)
ATE US (oral)	6450.000 mg/kg bodyweight

TITANIUM(IV) OXIDE (13463-67-7)

LD50 Oral Rat	> 10000 mg/kg (Rat; OECD 425: Acute Oral Toxicity: Up-and-Down Procedure; Experimental value; > 5000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit; Literature study)
LD50 Inhalation - Rat	> 6.8 mg/l/4h (Rat; Experimental value)

ZINC OXIDE (1314-13-2)

LD50 Oral Rat	> 5000 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rabbit	> 7940 mg/kg (Rabbit; Literature study)
LC inhalation rat (mg/l)	> 5.7 mg/l/4h (Rat; Experimental value)

2,2,4-TRIMETHYL-1,3-PENTANEDIOL MONOISOBUTYRATE (25265-77-4)

LD50 Oral Rat	3200 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 15200 mg/kg (Rabbit, Dermal)
ATE US (oral)	3200.000 mg/kg bodyweight

1,2-PROPANEDIOL (57-55-6)

LD50 Oral Rat	20000 mg/kg (Rat; Experimental value)
LD50 dermal rat	22500 mg/kg (Rat; Experimental value)
LD50 dermal rabbit	20800 mg/kg (Rabbit; Experimental value)
ATE US (oral)	20000.000 mg/kg bodyweight
ATE US (dermal)	20800.000 mg/kg bodyweight

POLYETHYLENS (9002-99-4)

LD50 Oral Rat	20000 mg/kg (Rat; Experimental value)
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CARCINOGENICITY

TITANIUM(IV) OXIDE (13463-67-7)

IARC Group	2B - Possibly carcinogenic to humans
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POLYETHYLENS (9002-99-4)

IARC Group	23- Not classifiable
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12. ECOLOGICAL INFORMATION

TOXICITY

Ecology - General	Very toxic to aquatic life with long lasting effects.
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CALCIUM CARBONATE (471-34-1)

LC50 fish 1	> 100 % (96 h; Oncorhynchus mykiss)
EC50 Daphnia 1	> 100 % (48 h; Daphnia magna)
TLM fish 1	> 56000 mg/l (96 h; Gambusia affinis)
Threshold limit algae 1	> 14 mg/l (72 h; Desmodesmus subspicatus; GLP)
Threshold limit algae 2	14 mg/l (72 h; Desmodesmus subspicatus; GLP)

TITANIUM(IV) OXIDE (13463-67-7)

LC50 fish 1	> 1000 mg/l (96 h; Pimephales promelas)
EC50 Daphnia 1	< 1000 mg/l (432 h; Daphnia magna; Static system)
LC50 fish 2	> 1 g/l (96 h; Leuciscus idus)
EC50 Daphnia 2	< 500 mg/l (720 h; Daphnia magna; Static system)
Threshold limit algae 1	61 mg/l (72 h; Pseudokirchneriella subcapitata)

ZINC OXIDE (1314-13-2)

LC50 fish 1	0.59 ppm (96 h; Salmo gairdneri (Oncorhynchus mykiss); Zinc ion)
EC50 Daphnia 1	0.068 mg/l (48 h; Daphnia magna; Zinc ion)
LC50 fish 2	0.14 mg/l (96 h; Oncorhynchus mykiss)
Threshold limit algae 1	0.136 mg/l (72 h; Pseudokirchneriella subcapitata; Zinc ion)
Threshold limit algae 2	< 0.12 mg/l (Algae; Zinc ion)

LATEX, LIQUID, SYNTHETIC

Persistence and degradability	Biodegradability in soil: no data available.
Biochemical oxygen demand (BOD)	0.01 g O ₂ /g substance

2,2,4-TRIMETHYL-1,3-PENTANEDIOL MONOISOBUTYRATE (25265-77-4)

LC50 fish 1	30 mg/l (96 h; Pimephales promelas)
EC50 Daphnia 1	147.8 mg/l (48 h; Daphnia sp.)
Threshold limit algae 1	3.28 mg/l (72 h; Selenastrum capricornutum; Biomass)
Threshold limit algae 2	18.4 mg/l (72 h; Selenastrum capricornutum; Growth)

1,2-PROPANEDIOL (57-55-6)

LC50 fish 1	51400 mg/l (96 h; Pimephales promelas)
LC50 other aquatic organisms	> 1000 mg/l (96 h)
EC50 Daphnia 1	34400 mg/l (48 h; Daphnia magna)
LC50 fish 2	51600 mg/l (96 h; Oncorhynchus mykiss)
TLM fish 1	> 1000 ppm (96 h; Pisces)
TLM other aquatic organisms 1	> 1000 ppm (96 h)
Threshold limit other aquatic organisms 1	> 1000 mg/l (96 h)
Threshold limit algae 1	15000 mg/l (336 h; Selenastrum capricornutum)
Threshold limit algae 2	< 5300 mg/l (336 h; Skeletonema costatum)

PERSISTENCE AND DEGRADABILITY

TITANIUM(IV) OXIDE (13463-67-7)

Persistence and degradability	Biodegradability: not applicable. Low potential for mobility in soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD) N	ot applicable

CALCIUM CARBONATE (471-34-1)

Persistence and degradability	Biodegradability: not applicable. Biodegradability in soil: not applicable. Adsorbs into the soil.]
ThOD	Not applicable (inorganic)

ZINC OXIDE (1314-13-2)

Persistence and degradability	Biodegradability: not applicable. Biodegradability in soil: not applicable. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD) N	ot applicable

2,2,4-TRIMETHYL-1,3-PENTANEDIOL MONOISOBUTYRATE (25265-77-4)

Persistence and degradability	Readily biodegradable in water.
Chemical oxygen demand (COD)	2.1 g O ₂ /g substance
ThOD	2.4 g O ₂ /g substance

1,2-PROPANEDIOL (57-55-6)

Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	0.96 - 1.08 g O ₂ /g substance
Chemical oxygen demand (COD)	1.63 g O ₂ /g substance
ThOD	1.69 g O ₂ /g substance
BOD (% of ThOD)	0.57 % ThOD

POLYETHYLENES (9002-88-4)

Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil.
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BIOACCUMULATIVE POTENTIAL

TITANIUM(IV) OXIDE (13463-67-7)

Bioacumulitve potential	Not bioaccumulative.
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CALCIUM CARBONATE (471-34-1)

Log Pow	-2.12 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable.

ZINC OXIDE (1314-13-2)

Log Pow	1.53 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

2,2,4-TRIMETHYL-1,3-PENTANEDIOL MONOISOBUTYRATE (25265-77-4)

Bioacumulitve potential	Not bioaccumulative.
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LATEX, LIQUID, SYNTHETIC

Bioacumulitve potential	Not bioaccumulative.
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1,2-PROPANEDIOL (57-55-6)

Log Pow	-1.41 - -0.30
Bioaccumulative potential	Not bioaccumulative.

POLYETHYLENES (9002-88-4)

Bioaccumulative potential	Bioaccumulation: not applicable.
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MOBILITY IN SOIL

1,2-PROPANEDIOL (57-55-6)

Surface tention	0.036 N/m (25 °C)
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13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

Waste disposal recommendations	Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/ container to Avoid release the environment, Do not discharge into drains or the environment, Do not discharge into the sewer.
Ecology - waste materials	Avoid release to environment

14. TRANSPORT INFORMATION

DOT REGULATED COMPONENTS

In accrodance with DOT	
Not regulated for transport	

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS

LATEX, LIQUID, SYNTHETIC

C>=13.00% ; C<=18.00%

CALCIUM CARBONATE (471-34-1)

C>=24.00% ; C<=32.00%

TITANIUM(IV) OXIDE (13463-67-7)

C>=8.00% ; C<=12.00%

ZINC OXIDE (1314-13-2)

C>=0.20% ; C<=0.50%

WATER (7732-18-5)

C>=22.00% ; C<=32.00%

2,2,4-TRIMETHYL-1,3-PENTANEDIOL MONOISOBUTYRATE (25265-77-4)

C>=0.30% ; C<=0.60%

1,2-PROPANEDIOL (57-55-6)

C>=0.50% ; C<=0.80%

POLYETHYLENES (9002-88-4)

C>=0.30% ; C<=0.60%

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

US STATE REGULATIONS

RUGGED COATINGS MAAC

U.S - California - Proposition 65 - Carcinogens	Yes
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U.S - California - Proposition 65 - Developmental Toxicity	No
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U.S - California - Proposition 65 - Reproductive Toxicity (f)	No
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U.S - California - Proposition 65 - Reproductive Toxicity (m)	No
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California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm.

16. OTHER INFORMATION

SAFETY DATA SHEET ISSUED BY PRODUCT SAFETY DEPARTMENT

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Rugged Coatings. The data on these sheets relates only to the specific material designated herein. Rugged Coatings assumes no legal responsibility for use or reliance upon this data. It is the user's responsibility to ensure that their activities comply with federal, state, or local laws.