



FORMULA FIVE® Matte Top Coat

Version 1.1 SDS EN

Revision Date: 2 March 2016

Print Date: 17 March 2016

1. Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name: FORMULA FIVE® Matte Top Coat

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture: Mold release agent

1.3 Details of the supplier of the safety data sheet

Company: REXCO
 P.O. Box 80996
 Conyers, Georgia 30013
 U.S.A.
 Telephone: + 1 770 483 7610
 Fax: + 1 770 483 8550
 Email: info@rexco-usa.com

1.4 Emergency telephone number

ChemTrec (24 hour): 1-800-424-9300 (USA and Canada)
 +1-703-527-3887 (Outside USA and Canada; collect calls accepted)

2. Hazards identification**2.1 Classification of the substance or mixture**

Hazard Statement Code	Hazard Class	Hazard Category
H225	Flammable Liquids	2
H302	Acute Toxicity – Oral	4
H340	Mutagenicity	1B
H350	Carcinogenicity	1B
H412	Hazardous to Aquatic Environment – Long-Term (Chronic) Hazard	3

98% of mixture consists of component(s) of unknown toxicity.

19% of mixture consists of component(s) of unknown hazards to the aquatic environment.

2.2 Label Elements

Signal word: Danger

Hazard pictograms:





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Hazard statements

Hazard Statement Code	Hazard Statement
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H340	May cause genetic defects.
H350	May cause cancer.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

Precautionary Statement Code	Precautionary Statement
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/Bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing fume/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P330	Rinse mouth.
P370 + P378	In case of fire: Use dry chemicals, CO ₂ , water fog, water spray, or alcohol-resistant foam.
P391	Collect spillage.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant in accordance with local, regional, and national regulations.

3. Composition/information on ingredients

3.2 Mixtures

Chemical nature: Mixture



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Hazardous components

Component	CAS-No.	EC-No.	Concentration [%]
Solvent naphtha (petroleum), light aliph.	64742-89-8	265-192-2	≥ 75 - ≤ 90
Petroleum hydrocarbons	8052-41-3	232-489-3	≥ 5 - ≤ 15
Toluene	108-88-3	203-625-9	≥ 1 - ≤ 5
Nonane	111-84-2	203-913-4	≥ 0.25 - ≤ 1
1,2,4-trimethylbenzene	95-63-6	202-436-9	≥ 0.01 - ≤ 3
n-Hexane	110-54-3	203-777-6	≥ 0.01 - ≤ 3
Trade Secret *	--	--	≥ 0.01 - ≤ 4

* Specific chemical identity of components withheld as trade secret.

4. First aid measures

4.1 Description of first aid measures

General advice: Do not leave victim unattended. Show this safety data sheet to doctor in attendance. If fumes are present first aid provider should wear a mask or self-contained breathing apparatus. Providing mouth-to-mouth resuscitation may be dangerous to the first aid provider if victim has ingested or inhaled material. Wear gloves when handling contaminated clothing.

In case of eye contact: Flush immediately with cold water for 15 minutes. Remove contact lenses. Keep eye wide open while rinsing. Get prompt medical attention.

In case of skin contact: Flush contaminated skin with plenty of water. Wear gloves when removing contaminated clothing. Remove contaminated clothing and wash affected area with soap and warm water. Continue to rinse for 15 minutes. If irritation persists, seek medical attention. Launder contaminated clothing and shoes prior to reuse.

If inhaled: Expose individual to fresh air and/or oxygen if light-headed or having difficulty breathing. If difficulty breathing persists, seek medical attention. If individual is not breathing or breathing is irregular, trained personnel should provide oxygen or artificial respiration. Providing mouth-to-mouth resuscitation may be dangerous to the person providing aid. If decomposition products are inhaled in a fire, symptoms may be delayed and exposed person may need to be kept under medical surveillance for at least 48 hours.

If swallowed: Seek immediate medical attention. Rinse mouth with water and remove dentures if present. If material has been swallowed and individual is conscious provide individual with small amounts of water to drink. If exposed individual feels nauseous discontinue providing water. Do not induce vomiting unless directed to do so by medical personnel. If spontaneous vomiting occurs keep victim's head below hips to prevent aspiration into lungs. Do not leave individual unattended.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Standard procedure for chemical fires. Use dry chemicals, carbon dioxide, water fog, water spray, or foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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Unsuitable extinguishing media: Water may be unsuitable as an extinguishing media but helpful in keeping adjacent areas cool. Avoid spreading burning liquid with water used for cooling purposes. Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Highly flammable liquid and vapour. Pressure may increase and cause container rupture or explosion if heated or in a fire. Harmful to aquatic life with long lasting effects. Runoff may create fire or explosion hazard. Water used to extinguish fire may be contaminated with material and must be prevented from entering sewer, drain or waterways. Hazardous thermal decomposition products may include carbon dioxide, carbon monoxide, formaldehyde, metal oxides and nitrogen oxides.

5.3 Advice for firefighters

Remove individuals from vicinity of fire. Remove containers of material from area if safe to do so. Keep containers exposed to fire cool using water spray.

Special protective equipment for firefighters: Wear self-contained breathing apparatus with full face piece operated in positive pressure mode and protective clothing. Avoid inhalation and contact with skin and eyes.

6. Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Do not walk through or come in contact with spilled material. Keep sources of ignition and hot metal surfaces isolated from spill. Ensure adequate ventilation. If ventilation is not adequate then wear appropriate respirator. Avoid breathing vapor, mist and dust. Emergency responders should refer to Section 8 for information regarding appropriate material for specialized clothing.

6.2 Environmental precautions

May be harmful to the environment if released in large quantities. Stop spill at source and prevent further leakage or spillage if safe to do so. Prevent product from entering drains, sewers, waterways or soil. If environmental contamination occurs, notify proper authorities. Collect spilled material for disposal according to local regulations.

6.3 Methods and materials for containment and cleaning up

Use explosion-proof equipment and spark-proof tools. In case of large spill, approach material from upwind. Confine spill and absorb with inert dry material. Contaminated absorbent material may pose same hazards as spilled product. Place into suitable, closed container for disposal. Dispose of in accordance with regional, national, and local laws and regulations.

7. Handling and storage**7.1 Precautions for safe handling**

Advice on safe handling: For personal protection see Section 8. Smoking, eating, and drinking should be prohibited in the application area. Wash hands and face before eating, drinking or smoking. Contaminated clothing and personal protective equipment should be removed prior to entering areas employed for eating. Use personal protective equipment to avoid inhalation and contact with eyes, skin or clothing. Use with adequate ventilation or use appropriate respirator. Keep material in original container or one made from



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compatible material. Keep lid tightly closed when not in use. Empty containers may contain product residue such as hazardous vapors; continue to observe safe handling precautions.

Advice on protection against fire and explosion: Normal measures for preventive fire protection. Keep work areas free of hot metal surfaces and other sources of ignition. Use non-sparking tools and explosion-proof electrical equipment. Take measures to avoid electrostatic discharge.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Store in original container in cool, dry, well-ventilated and locked location. Keep away from ignition sources, incompatible materials, food and drink. Keep container tightly closed when not in use and store upright. Do not store in unlabeled container. Observe label precautions. Store in accordance with local regulations in segregated area.

8. Exposure controls/personal protection

8.1 Control parameters

No data specific to this product. Exposure control information provided for components.

Component	OSHA ¹ (General Industry) Permissible Exposure Limit (PEL)	NIOSH ² Recommended Exposure Limit (REL)	ACGIH ³ Threshold Limit Value (TLV)
Petroleum Hydrocarbons	500 ppm TWA ⁴	350 mg/m ³ TWA	100 ppm TWA
Toluene	200 ppm TWA	100 ppm TWA	20 ppm TWA
Nonane	Not Established	200 ppm TWA	200 ppm TWA
1,2,4-trimethylbenzene	Not Established	25 ppm TWA	25 ppm TWA
n-Hexane	500 ppm TWA	50 ppm TWA	50 ppm TWA

¹ OSHA = Occupational Safety and Health Administration (U.S.)

² NIOSH = National Institute for Occupational Safety and Health (U.S.)

³ ACGIH = American Conference of Governmental Industrial Hygienists (U.S.)

⁴ TWA = 8-hour time weighted average

8.2 Exposure controls

Use with adequate ventilation. Use explosion-proof ventilation equipment. Keep exposures to airborne contaminants below recommended or statutory limits using local exhaust ventilation, process enclosures, or other engineering controls. Keep gas, vapour, or dust concentrations below lower explosive limits using engineering controls.

Personal protective equipment

Hand protection: Wear chemical resistant impervious gloves.

Eye protection: Safety glasses with side shields or goggles are recommended. Safety showers and eye wash stations should be located close to work area.

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Skin and body protection: Wear impervious clothing and shoes. Safety showers and eye wash stations should be located closed to work areas. Wear anti-static protective clothing if ignition from static discharge is possible.

Respiratory protection: Provide sufficient general and/or local exhaust. Use respirator if necessary to insure adequate ventilation.

Hygiene measures: Do not eat, drink, or smoke while using. Wash hands, forearms and face thoroughly before eating, drinking, smoking, using the toilet, before breaks and at the end of workday. Wash contaminated clothing or shoes prior to reuse.

Environmental exposure controls

Prevent product from entering drains, sewers, waterways or soil. If environmental contamination occurs, notify proper authorities. Ensure that emissions from ventilation or work equipment comply with environmental protection regulations.

9. Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Appearance: straw-colored liquid

Odour: paraffinic

Odour threshold: no data available

pH: no data available

Melting point/freezing point: no data available / no data available

Initial boiling point and boiling range: 240 °F – 280 °F (116 °C – 138 °C)

Flash point: <73 °F (<23 °C)

Evaporation rate: >1 (n-Butyl Acetate = 1)

Flammability: no data available

Upper/lower flammability or explosive limits: no data available

Vapour pressure: no data available

Vapour density: no data available

Relative density: 0.72 – 0.76 (Water = 1)

Solubility(ies): immiscible in water

Partition coefficient: n-octanol/water: no data available

Auto-ignition temperature: no data available

Decomposition temperature: no data available

Viscosity: <15 cps

Volatile organic content (actual VOC): >98%



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10. Stability and reactivity**10.1 Reactivity**

No data specific to this product or its ingredients is available.

10.2 Chemical stability

Stable under normal conditions of use.

10.3 Possibility of hazardous reactions

Will not occur under normal conditions of use and storage.

10.4 Conditions to avoid

Do not expose material or container to heat, sparks, open flames, hot surfaces, or other sources of ignition.
Do not pressurize or cut containers.

10.5 Incompatible materials

Incompatible with oxidizing agents. Do not expose to oxidants, alkalis, strong acids or water.

10.6 Hazardous decomposition products

Hazardous decomposition products are not expected to form during normal storage. Combustion in the presence of oxygen may yield carbon dioxide, carbon monoxide, formaldehyde and nitrogen oxides.

11. Toxicological information

No data specific to this product. Toxicological information provided for components.

11.1 Information on toxicological effects

Acute toxicity

Component	Result	Species	Dose	Exposure
Toluene	LC50 Inhalation Vapor	Rat	49 g/m ³	4 hours
Toluene	LD50 Oral	Rat	636 mg/kg	-
Nonane	LC50 Inhalation Gas	Rat	3200 ppm	4 hours
Nonane	LC50 Inhalation Vapor	Rat	17000 mg/m ³	4 hours
n-Hexane	LC50 Inhalation Gas	Rat	48000 ppm	4 hours
n-Hexane	LD50 Oral	Rat	15840 mg/kg	-
Trade Secret	LD50 Dermal	Rat	15840 mg/kg	-
Trade Secret	LD50 Oral	Rat	32 mg/kg	-

Acute Toxicity Estimates

Route	ATE Value
Oral	1380.5 mg/kg



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Skin corrosion/irritation

Component	Result	Species	Dose	Exposure	Observation
Toluene	Skin – mild irritant	Pig	-	24 hours, 250 µL	-
Toluene	Skin – mild irritant	Rabbit	-	435 mg	-
Toluene	Skin – moderate irritant	Rabbit	-	24 hours, 20 mg	-
Toluene	Skin – moderate irritant	Rabbit	-	500 mg	-
Nonane	Skin – mild irritant	Pig	-	24 hours, 250 µL	-
Nonane	Skin – moderate irritant	Rat	-	96 hours, 300 µL	-
Trade Secret	Skin – severe irritant	Rabbit	-	24 hours, 500 µL	-

Serious eye damage/irritation

Component	Result	Species	Dose	Exposure	Observation
Toluene	Eyes – mild irritant	Rabbit	-	0.5 minutes, 100 mg	-
Toluene	Eyes – mild irritant	Rabbit	-	870 µg	-
Toluene	Eyes – severe irritant	Rabbit	-	24 hours, 2 mg	-
n-Hexane	Eyes – mild irritant	Rabbit	-	10 mg	-
Trade Secret	Eyes – severe irritant	Rabbit	-	100 µL	-

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

Carcinogenicity: no data available

Reproductive toxicity: no data available

STOT - single exposure

Component	Category	Route of Exposure	Target Organs
Nonane	Category 3	Not applicable	Narcotic effects
n-Hexane	Category 3	Not applicable	Narcotic effects

STOT - repeated exposure

Component	Category	Route of Exposure	Target Organs
Toluene	Category 2	Not determined	Not determined
n-Hexane	Category 2	Not determined	Not determined

Aspiration hazard

Component	Result
Solvent naphtha (petroleum), light aliph.	Aspiration Hazard – Category 1
Toluene	Aspiration Hazard – Category 1
Nonane	Aspiration Hazard – Category 1
n-Hexane	Aspiration Hazard – Category 1



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11.2 Potential acute health effects

Inhalation: Exposure to decomposition products in a fire may result in delayed symptoms and may cause a health hazard. Exposed person may need to be kept under medical surveillance for at least 48 hours.

Skin contact: No known significant effects.

Eye contact: No known significant effects.

Ingestion: Harmful if ingested.

12. Ecological information

No data specific to this product is available. Ecological information provided for components.

12.1 Toxicity

Aquatic toxicity (acute and chronic)

Component	Species	Exposure	Result
Solvent naphtha (petroleum), light aliph.	Fish – <i>Oncorhynchus mykiss</i>	96 hours	Acute LC50 100000 ppm fresh water
Toluene	Algae – <i>Skeletonema costatum</i>	96 hours	Acute EC50 433 ppm marine water
Toluene	Algae – <i>Pseudokirchneriella subcapitata</i>	72 hours	Acute EC50 12500 µg/L fresh water
Toluene	Crustaceans – <i>Gammarus psedolimnaeus</i> - adult	48 hours	Acute NOEC 116000 µg/L fresh water
Toluene	Daphnia – <i>Daphnia magna</i> – juvenile	48 hours	Acute EC50 6000 µg/L fresh water
Toluene	Fish – <i>Oncorhynchus kisutch</i> – fry	96 hours	Acute LC50 5500 µg/L fresh water
Toluene	Algae – <i>Pseudokirchneriella subcapitata</i>	96 hours	Chronic NOEC 500000 µg/L fresh water
Toluene	Daphnia – <i>Daphnia magna</i>	21 days	Chronic NOEC 1000 µg/L fresh water
n-Hexane	Fish – <i>Pimephales promelas</i>	96 hours	Acute LC50 2500 µg/L fresh water
Trade Secret	Fish – <i>Pimephales promelas</i>	96 hours	Acute LC50 430 µg/L marine water
Trade Secret	Fish – <i>Cyprinodon variegatus</i> - juvenile	72 hours	Acute EC50 35 µg/L marine water

Ecotoxicity: no data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

Chemical Name	Log P _{ow}	BCF	Potential
Solvent naphtha (petroleum), light aliph.	-	10 to 2500	High
Toluene	2.73	90	Low

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Nonane	5.65	105	Low
n-Hexane	4	501.187	High
Trade Secret	0.63	2.5 to 5.8	Low

12.4 Mobility

No data available

12.5 Result of PBT and vPvB assesment

No data available

12.6 Other adverse effects

No other adverse effects expected.

13. Disposal considerations






Dispose of in accordance with regional, national, and local laws and regulations.

13.1 Waste treatment methods

Material disposal: Do not dispose of waste into sewer. Do not contaminate ponds, waterways, or ditches with product or used container. Send to a licensed waste management company. Product may meet criteria for classification as a hazardous waste.

Container disposal: Empty remaining contents. Do not reuse empty containers. Empty containers may contain product residue such as hazardous vapors; continue to observe safe handling precautions. Do not expose containers to heat, sparks, open flames, hot surfaces, or other sources of ignition. Do not pressurize or cut containers.

14. Transport information

	DOT	ADR/RID	ADN	IMDG	IATA
UN Number	UN1866	UN1866	UN1866	UN1866	UN1866
UN Proper Shipping Name	Resin Solution	Resin Solution	Resin Solution	Resin Solution	Resin Solution
Transportation Hazard Class	3	3	3	3	3
Packing Group	II	II	II	II	II
Transportation Hazard Label					
Marine Pollutant	Yes	Yes	Yes	Yes	Yes



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15. Regulatory information**15.1 Safety, health, and environmental regulations/legislation specific to the substance or mixture****National Inventories**

Australia (AICS): all components are listed or exempted
 Canada (DSL): all components are listed or exempted
 Canada (NDSL): not determined
 China (IECSC): all components are listed or exempted
 Europe (EINECS): not determined
 Japan (ENCS): not determined
 Malaysia (EHSNR): not determined
 New Zealand (NZIoC): all components are listed or exempted
 Philippines (PICCS): all components are listed or exempted
 Republic of Korea (KECI): all components are listed or exempted
 Taiwan (NECI): not determined
 United States (TSCA) all components are listed or exempted

SARA 302 Components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

SARA 311/312 Hazards:

Fire hazard, acute health hazard, chronic health hazard

SARA 313

The following components are subject to reporting levels established by SARA Title III, Section 313:

Component	CAS Number
Toluene	108-88-3
1,2,4-trimethylbenzene	95-63-6
n-Hexane	110-54-3

State Right to Know

This product contains the following Right-To-Know substances:

Component	CAS Number	States
Toluene	108-88-3	California, Massachusetts, Minnesota, New Jersey, Pennsylvania, Rhode Island
Nonane	111-84-2	Massachusetts, New Jersey, Pennsylvania
1,2,4-trimethylbenzene	95-63-6	California, Massachusetts, Minnesota, New Jersey, Pennsylvania, Rhode Island
n-Hexane	110-54-3	Massachusetts, New Jersey, Pennsylvania

California Proposition 65

This product contains a chemical known to the state of California to cause cancer, reproductive, and/or developmental effects:

Component	CAS Number	Toxicity Type
Toluene	108-88-3	Developmental



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16. Other information

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety, and environmental requirements only. It should not be construed as guaranteeing any specific property of the product. REXCO makes no warranty of any kind, express or implied, including warranties of merchantability or fitness for a particular purpose, concerning the safe use of this material in your process or in combination with other substances. Users should make their own tests and assessments as to the suitability of this product or the information contained herein for their particular purposes and uses.