## FORMULA FIVE® Mold Stripper



Version 1.0 SDS EN Revision Date: 9 November 2015 Print Date: 17 March 2016

## 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Trade name: FORMULA FIVE® Mold Stripper

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

Use of the substance/mixture: Mold cleaner

## 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
H315	Skin Corrosion / Irritation	2
H319	Eye Damage / Irritation	2
H332	Acute Toxicity – Inhalation	4
H335	STOT-SE – Respiratory irritation	3
H336	STOT-SE – Drowsiness or dizziness	3
H360	Reproductive Toxicity	1B
H411	Hazardous to Aquatic Environment – Long-Term (Chronic) Hazard	2

11.2% of mixture consists of component(s) of unknown hazards to the aquatic environment.

#### 2.2 Label Elements

Signal word: Danger

Hazard pictograms:



# FORMULA FIVE® Mold Stripper



Version 1.0 SDS EN Revision Date: 9 November 2015 Print Date: 17 March 2016

## Hazard statements

Hazard Statement Code	Hazard Statement
H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360	May damage fertility or the unborn child.
H411	Toxic 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.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skir 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.
P312	Call a POISON CENTER/doctor if you feel unwell.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use dry chemicals, CO <sub>2</sub> , water fog, water spray, or alcohol-resistant foam.
P391	Collect spillage.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
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





Version 1.0 SDS EN Revision Date: 9 November 2015 Print Date: 17 March 2016

with local, regional, and national regulations.	
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#### 3. Composition/information on ingredients

#### 3.2 Mixtures

Chemical nature: Mixture

## **Hazardous components**

Component	CAS-No.	EC-No.	Concentration [%]
n-Methyl-2-pyrrolidone	872-50-4	212-828-1	≥ 35 - ≤ 50
Methyl ethyl ketone	78-93-3	201-159-0	≥ 25 - ≤ 35
n-Butyl acetate	123-86-4	204-658-1	≥ 15 - ≤ 20
Trade Secret *			≥ 5 - ≤ 10
Trade Secret *			≥ 1 - ≤ 5
Trade Secret *			≥ 1 - ≤ 5

<sup>\*</sup> 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.

## FORMULA FIVE® Mold Stripper



Version 1.0 SDS EN Revision Date: 9 November 2015 Print Date: 17 March 2016

## 4.2 Most important symptoms and effects

#### 4.2.1 Acute symptoms and effects

Eye contact: Irritating to eyes. Skin contact: Irritating to skin.

Inhalation: Generates harmful vapours that are irritating to respiratory system. May cause dizziness and drowsiness. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion: Irritating to mouth, throat and stomach.

#### 4.2.2 Delayed symptoms and effects

Eye contact: Watering, irritation, redness

Skin contact: Redness, irritation, reduced fetal weight, skeletal malformations, increased fetal deaths Inhalation: Respiratory tract irritation, coughing, headache, drowsiness, fatigue, nausea, vomiting

Ingestion: Reduced fetal weight, skeletal malformations, increased fetal deaths

## 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.

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 iet.

## 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. 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 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.

## FORMULA FIVE® Mold Stripper

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Version 1.0 SDS EN Revision Date: 9 November 2015 Print Date: 17 March 2016

#### 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

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. Avoid exposure during pregnancy. 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 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.





Version 1.0 SDS EN Revision Date: 9 November 2015 Print Date: 17 March 2016

Component	OSHA₁ (General Industry) Permissible Exposure Limit (PEL)	NIOSH <sub>2</sub> Recommended Exposure Limit (REL)	ACGIH <sub>3</sub> Threshold Limit Value (TLV)
n-Methyl-2-pyrrolidone	Not established	Not established	Not established
Methyl ethyl ketone	200 ppm TWA₄	200 ppm TWA	200 ppm TWA
n-Butyl acetate	150 ppm TWA	150 ppm TWA	150 ppm TWA

<sup>&</sup>lt;sup>1</sup> OSHA = Occupational Safety and Health Administration (U.S.)

#### 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 closed to work area.

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: clear - pale yellow liquid

Odour: solvent

Odour threshold: no data available

<sup>&</sup>lt;sup>2</sup> NIOSH = National Institute for Occupational Safety and Health (U.S.)

<sup>&</sup>lt;sup>3</sup> ACGIH = American Conference of Governmental Industrial Hygienists (U.S.)

<sup>&</sup>lt;sup>4</sup> TWA = 8-hour time weighted average

## FORMULA FIVE® Mold Stripper

Version 1.0 SDS EN Revision Date: 9 November 2015 Print Date: 17 March 2016

pH: no data available

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

Initial boiling point and boiling range: 176 °F – 478 °F (80 °C – 248 °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: 0.91 - 0.95 (Water = 1)

relative defisity: 0.91 – 0.95 (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): 100%

## 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 and strong acids.

## 10.6 Hazardous decomposition products

## FORMULA FIVE® Mold Stripper



Print Date: 17 March 2016

Version 1.0 SDS EN Revision Date: 9 November 2015

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

## 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
n-Methyl-2-pyrrolidone	LD50 Dermal	Rabbit	8 g/kg	-
n-Methyl-2-pyrrolidone	LD50 Oral	Rat	3914 mg/kg	-
Methyl ethyl ketone	LD50 Dermal	Rabbit	6480 mg/kg	-
Methyl ethyl ketone	LD50 Oral	Rat	2737 mg/kg	-
n-Butyl acetate	LC50 Inhalation Vapor	Rat	390 ppm	4 hours
n-Butyl acetate	LD50 Dermal	Rabbit	> 17600 mg/kg	-
n-Butyl acetate	LD50 Oral	Rat	10768 mg/kg	-
Trade secret	LD50 Dermal	Rabbit	> 5000 mg/kg	-
Trade secret	LD50 Oral	Rat	> 5000 mg/kg	-
Trade secret	LD50 Dermal	Rabbit	> 5000 mg/kg	-
Trade secret	LD50 Oral	Rat	> 5 mg/kg	-
Trade secret	LD50 Dermal	Rabbit	> 5000 mg/kg	-
Trade secret	LD50 Oral	Rat	11300 mg/kg	-

## **Acute Toxicity Estimates**

Route	ATE Value		
Inhalation (gases)	2600 ppm		

## Skin corrosion/irritation

Component	Result	Species	Dose	Exposure	Observation
Methyl ethyl ketone	Skin – mild irritant	Rabbit	-	24 hours, 14 mg	-
Methyl ethyl ketone	Skin – moderate irritant	Rabbit	-	24 hours, 500 mg	-

## Serious eye damage/irritation

Component	Result	Species	Dose	Exposure	Observation
n-Methyl-2-pyrrolidone	Eyes – moderant irritant	Rabbit	-	100 mg	-
n-Butyl acetate	Eyes – moderant irritant	Rabbit	ı	100 mg	-
Trade Secret	Eyes – moderant irritant	Rabbit	-	0.1 mL	-
Trade Secret	Eyes – moderant irritant	Rabbit	-	0.1 mL	-
Trade Secret	Eyes – moderant irritant	Rabbit	-	0.1 mL	-

## FORMULA FIVE® Mold Stripper

Version 1.0 SDS EN Revision Date: 9 November 2015 Print Date: 17 March 2016

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: no data available

STOT - repeated exposure: no data available

Aspiration hazard: no data available

#### 11.2 Potential acute health effects

Eye contact: Irritating to eyes. Skin contact: Irritating to skin.

Inhalation: Generates harmful vapours that are irritating to respiratory system. May cause dizziness and drowsiness. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion: Irritating to mouth, throat and stomach.

#### 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
n-Methyl-2-pyrrolidone	Daphnia – Daphnia magna	48 hours	Acute LC50 1.23 ppm fresh water
n-Methyl-2-pyrrolidone	Fish – Lepomis macrochirus	96 hours	Acute LC50 832 ppm fresh water
Methyl ethyl ketone	Algae – Skeletonema costatum	96 hours	Acute EC50 500000 μg/L marine water
Methyl ethyl ketone	Fish	48 hours	Acute LC50 520000 µg/L fresh water
Methyl ethyl ketone	Fish – Cyprinodon variegatus – juvenile	96 hours	Acute LC50 400 ppm marine water
n-Butyl acetate	Crustaceans – Artemia salina – Nauplii	48 hours	Acute LC50 32000 μg/L marine water
n-Butyl acetate	Fish – Pimephales promelas	96 hours	Acute LC50 18000 μg/L fresh water

Ecotoxicity: no data available

#### 12.2 Persistence and degradability

No data available

## FORMULA FIVE® Mold Stripper



Version 1.0 SDS EN Revision Date: 9 November 2015 Print Date: 17 March 2016

## 12.3 Bioaccumulative potential

Chemical Name	Log P <sub>ow</sub>	BCF	Potential
n-Methyl-2-pyrrolidone	-0.46	-	Low
Methyl ethyl ketone	0.3	-	Low
n-Butyl acetate	2.3	-	Low
Trade Secret	0.49	-	Low
Trade Secret	0.33	3.162	Low
Trade Secret	1.03	-	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.

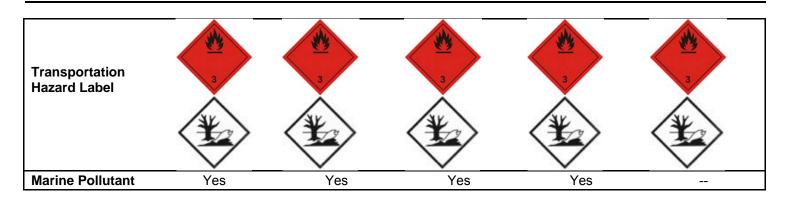
## 14. Transport information

	DOT	ADR/RID	ADN	IMDG	IATA
UN Number	UN1993	UN1993	UN1993	UN1993	UN1993
UN Proper Shipping Name	Flamamble Liquid, n.o.s. (Methyl Ethyl Ketone, n-Methyl- 2-pyrrolidone)				
Transportation Hazard Class	3	3	3	3	3
Packing Group	II	II	II	II	II

## FORMULA FIVE® Mold Stripper



Version 1.0 SDS EN Revision Date: 9 November 2015 Print Date: 17 March 2016



## 15. Regulatory information

## 15.1 Safety, health, and environmental regulations/legislation specific to the substance or mixture

#### **National Inventories**

Australia (AICS): not determined

Canada (DSL): all components are listed or exempted

China (IECSC): not determined

Europe (EINECS): all components are listed or exempted

Japan (ENCS): not determined Malaysia (EHSNR): not determined New Zealand (NZIoC): not determined Philippines (PICCS): not determined Republic of Korea (KECI): not determined

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**

This material does not contain chemical components that exceed the threshold reporting levels established by SARA Title III, Section 313.

## State Right to Know

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

Component	CAS Number	States
n Mathyl 2 pyrralidana	872-50-4	California, Massachusetts, Minnesota, New Jersey,
n-Methyl-2-pyrrolidone		Pennsylvania, Rhode Island
Methyl ethyl ketone	78-93-3	California, Massachusetts, Minnesota, New Jersey,
Metryr etrlyr ketorie		Pennsylvania, Rhode Island
n Butul contato	123-86-4	California, Massachusetts, Minnesota, New Jersey,
n-Butyl acetate	123-00-4	Pennsylvania, Rhode Island





Version 1.0 SDS EN Revision Date: 9 November 2015 Print Date: 17 March 2016

#### **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
n-Methyl-2-pyrrolidone	872-50-4	Developmental

#### 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.