

# Material Safety Data Sheet

Material Name: Mayco Stim-480

ID: MWI-011

## \*\*\* Section 1 - Chemical Product and Company Identification \*\*\*

**Chemical Name:** Mayco Stim-480

**Product Use:** Acid corrosion inhibitor

**Manufacturer Information**

Mayco Wellchem, Inc.  
1525 N. Post Oak Road  
Houston, TX 77055, TX 77055

Phone: (713) 688-2602  
Fax: 713-688-3620  
Emergency # 1 (888) 688-4467

## \*\*\* Section 2 - Composition / Information on Ingredients \*\*\*

CAS #	Component	Percent	ACGIH	OSHA
Proprietary	Dipropylene glycol monomethyl ether	19.47	100 ppm TWA; 606 mg/m <sup>3</sup> TWA 150 ppm STEL skin - potential for cutaneous absorption	Not available
Proprietary	Propargyl alcohol	9.74	1 ppm TWA skin - potential for cutaneous absorption	Not available
Proprietary	Methenamine	4.87	inhalable particulate: 10 mg/m <sup>3</sup> TWA; respirable particulate: 3 mg/m <sup>3</sup> TWA (These values are for particulate matter containing no asbestos and <1% crystalline silica) (related to Particulates not otherwise classified (PNOC))	15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction) (related to Particulates not otherwise regulated) (Final)
Proprietary	Dimethyl-1-hexyn-3-ol, 3,5	2.435		Not available
Proprietary	Methyl butynol	2.435		Not available

### Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Glycol ethers, Nuisance particulates.

### Component Information/Information on Non-Hazardous Components

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

## \*\*\* Section 3 - Hazards Identification \*\*\*

### Emergency Overview

**DANGER! COMBUSTIBLE!** Product is a light amber liquid This product may be fatal if it is swallowed or absorbed through the skin. May be severely irritating to the eyes and skin. This product is irritating to the respiratory system. Inhalation of mists or vapor may cause an allergic reaction with asthma-like symptoms. This product may cause an allergic skin reaction.

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## Potential Health Effects: Eyes

This product may be severely irritating to the eyes.

## Potential Health Effects: Skin

This product may be fatal if it is absorbed through the skin. This product may be severely irritating to the skin. May cause allergic skin reactions in sensitive individuals following repeated or prolonged use. Symptoms may include itching, dryness, and scaling.

## Potential Health Effects: Ingestion

This product may be fatal if it is swallowed. Ingestion of this product may cause nausea, vomiting and diarrhea.

## Potential Health Effects: Inhalation

Inhalation of vapors or mists of the product may be irritating to the respiratory system. Inhalation of mists or vapor may cause an allergic reaction with asthma-like symptoms. Excessive inhalation of this product may cause headache, dizziness, blurred vision, nausea and vomiting.

## Medical Conditions Aggravated

Preexisting eye, skin and respiratory disorders. Preexisting liver and kidney disorders.

## HMIS Ratings: Health: 2\* Fire: 2 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe \* = Chronic hazard

### \*\*\* Section 4 - First Aid Measures \*\*\*

#### First Aid: Eyes

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

#### First Aid: Skin

For skin contact, flush with large amounts of water. If irritation persists, get medical attention. For contact with large amounts, seek immediate medical attention. Immediately take off all contaminated clothing. Wash contaminated clothing before reuse.

#### First Aid: Ingestion

If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting.

#### First Aid: Inhalation

If mist or vapor of this product is inhaled, remove person immediately to fresh air. Seek medical attention if symptoms develop or persist.

#### First Aid: Notes to Physician

Provide general supportive measures and treat symptomatically.

### \*\*\* Section 5 - Fire Fighting Measures \*\*\*

Flash Point: 134°F (56°C)

Upper Flammable Limit (UFL): Not Applicable

Auto Ignition: Not Applicable

Rate of Burning: Not Available

#### General Fire Hazards

This product is combustible above the flashpoint. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition.

#### Hazardous Combustion Products

Upon decomposition, this product emits carbon monoxide, carbon dioxide, oxides of sulfur and nitrogen aldehydes hydrogen cyanide and ketones.

#### Extinguishing Media

Dry chemical, foam, carbon dioxide, water fog.

#### Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing including self contained breathing apparatus.

## NFPA Ratings: Health:2Fire:2Reactivity:0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

### \*\*\* Section 6 - Accidental Release Measures \*\*\*

#### Containment Procedures

Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Remove sources of ignition. Block any potential routes to water systems.

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## Clean-Up Procedures

Ventilate the contaminated area. Eliminate ignition sources including sources of electrical, static or frictional sparks. Do not allow the spilled product to enter public drainage system or open water courses. Absorb spill with inert material. Shovel material into appropriate container for disposal.

## Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

## Special Procedures

Avoid skin contact with the spilled material. Surfaces may become slippery after spillage. Regulations vary. Consult local authorities before disposal.

## \* \* \* Section 7 - Handling and Storage \* \* \*

### Handling Procedures

Avoid breathing vapors or mists of this product. Avoid contact with skin and eyes. Wash thoroughly after handling. Use non-sparking tools when opening or closing containers. Use this product with adequate ventilation. Do not cut or weld on empty drums. Sufficient vapors from residues may be present to cause explosion and serious injury and/or death. Keep this product from heat, sparks, or open flame. Do not mix this product with fluids which contain NITRITES/NITRATES. NITROSAMINE may be formed.

### Storage Procedures

Keep the container tightly closed and in a cool, well-ventilated place.

## \* \* \* Section 8 - Exposure Controls / Personal Protection \* \* \*

### Exposure Guidelines

Follow all applicable exposure limits.

### Engineering Controls

Ventilation should effectively remove and prevent buildup of any vapor or mist generated from the handling of this product.

### PERSONAL PROTECTIVE EQUIPMENT

#### Personal Protective Equipment: Eyes/Face

Wear chemical goggles; face shield (if splashing is possible).

#### Personal Protective Equipment: Skin

Use impervious gloves. Work clothing sufficient to prevent all skin contact should be worn, such as coveralls and long sleeves. Use of an impervious apron is recommended.

#### Personal Protective Equipment: Respiratory

If ventilation is not sufficient to effectively prevent buildup of vapor/mist/fume/dust, appropriate NIOSH/MSHA respiratory protection must be provided.

#### Personal Protective Equipment: General

Eye wash fountain and emergency showers are recommended.

## \* \* \* Section 9 - Physical & Chemical Properties \* \* \*

<b>Appearance:</b>	Amber	<b>Odor:</b>	None
<b>Physical State:</b>	Liquid	<b>pH:</b>	Not determined
<b>Vapor Pressure:</b>	Not determined	<b>Vapor Density:</b>	<1
<b>Boiling Point:</b>	205°F (96°C)	<b>Melting Point:</b>	Not applicable
<b>Solubility (H2O):</b>	Soluble	<b>Specific Gravity:</b>	1.025
<b>Freezing Point:</b>	Not determined	<b>Evaporation Rate:</b>	40 (Butyl acetate = 1)
<b>Percent Volatile:</b>	<1		

## \* \* \* Section 10 - Chemical Stability & Reactivity Information \* \* \*

### Chemical Stability

Stable under normal conditions.

### Chemical Stability: Conditions to Avoid

Keep away from heat, ignition sources and incompatible materials. Do not mix this product with nitrates or other nitrosating agents because a carcinogenic nitrosamine may be formed.

### Incompatibility

Nitrites may react with organic amines to form nitrosamines which can cause cancer. This product may react with strong oxidizing agents, reactive metals, hydroxyl compounds, phosphorus pentoxide, acids, and alkalis.

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## Hazardous Decomposition

Upon decomposition, this product emits carbon monoxide, carbon dioxide, oxides of sulfur and nitrogen aldehydes hydrogen cyanide and ketones.

## Hazardous Polymerization

Will not occur.

## \* \* \* Section 11 - Toxicological Information \* \* \*

### Acute and Chronic Toxicity

#### A: General Product Information

No information available for the product.

Dipropylene glycol monomethyl ether produces eye, throat, and respiratory tract irritation and can produce central nervous system (CNS) effects.

Propargyl alcohol may be fatal if inhaled, absorbed through the skin or ingested. Contact may cause severe irritation or burns. Exposure may result in dizziness, lightheadedness and lack of concentration. Large exposures to propargyl alcohol may cause coma or death. Propargyl alcohol may cause kidney and liver damage.

Methenamine (hexamine) is a known skin irritant and sensitizer. It may also cause irritation of the nose, mucous membranes and upper respiratory tract. Some people suffer a skin rash if they come in contact with this material or the fumes evolved when it is heated. Prolonged skin contact may produce a rash to the affected area (in particular the wrists, ankles, beltline, and collar areas of the neck) similar in appearance to poison ivy. Hexamine may decompose to formaldehyde in the presence of perspiration. The formaldehyde is trapped in the sweat pores of the skin and is then oxidized to formic acid, which is believed to be the actual agent responsible for the skin rash. Methenamine may also produce metabolic acidosis in patients with impaired renal function. Inhalation may cause asthma-like reactions in previously sensitized individuals.

Contact of the eye with methyl butynol may cause severe irritation and pain. Contact with the skin causes mild irritation and discomfort. Inhalation of mists may cause irritation in the respiratory tract. Repeated or prolonged exposure may cause allergic reaction/sensitization.

Dimethyl-1-hexyn-3-ol, 3,5 causes eye, skin and respiratory tract irritation and may be absorbed through the skin.

#### B: Component Analysis - LD50/LC50

##### Dipropylene glycol monomethyl ether (Proprietary)

Oral LD50 Rat : 5400 uL/kg

Dermal LD50 Rabbit : 10 mL/kg

##### Propargyl alcohol (Proprietary)

Inhalation LC50 Rat : 873 ppm/2H

Inhalation LC50 Mouse : 2000 mg/m<sup>3</sup>/2H

Oral LD50 Rat : 20 mg/kg

Oral LD50 Mouse : 50 mg/kg

Dermal LD50 Rabbit : 16 mg/kg

##### Methenamine (Proprietary)

Oral LD50 Mouse : 569 mg/kg

##### Methyl butynol (Proprietary)

Inhalation LC50 Mouse : 2 gm/m<sup>3</sup>

Oral LD50 Rat : 1950 mg/kg

Oral LD50 Mouse : 500 mg/kg

### Carcinogenicity

#### A: General Product Information

No information available for the product.

#### B: Component Carcinogenicity

None of this product's components are listed by IARC, OSHA, or NTP.

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## Chronic Toxicity

No information available for the product.

This product contains a glycol ether which may cause CNS depression characterized by headache, drowsiness, weakness, slurred speech, stuttering, loss of coordination and judgement, tremor, blurred vision, personality changes, and albuminuria. Overexposure to glycol ethers may also result in liver or kidney damage, and hemolytic effects.

## Epidemiology

No information available for the product.

## Neurotoxicity

No information available for the product.

## Mutagenicity

No information available for the product.

Methenamine has been shown to have mutagenic effects in Drosophila.

## Teratogenicity

No information available for the product.

### \*\*\* Section 12 - Ecological Information \*\*\*

## Ecotoxicity

### A: General Product Information

No information available for the product.

### B: Component Analysis - Ecotoxicity - Aquatic Toxicity

#### Propargyl alcohol (Proprietary)

LC50 (96 hr) fathead minnow: 1.44-1.53 mg/L. Cond: Flow-through, 24.7-25.7 degrees C, pH 7.70-7.72, 42.8-43.4 mg/L CaCO<sub>3</sub>.; EC50 (48 hr) water flea: 7.6 mg/L. Cond: Static, 21-23 degrees C, pH 7.4-9.4, 173 mg/L CaCO<sub>3</sub>.

## Environmental Fate

No information available for the product.

### \*\*\* Section 13 - Disposal Considerations \*\*\*

## US EPA Waste Number & Descriptions

### A: General Product Information

Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

### B: Component Waste Numbers

#### Propargyl alcohol (Proprietary)

RCRA: waste number P102

## Disposal Instructions

Regulations vary. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

### \*\*\* Section 14 - Transportation Information \*\*\*

## US DOT Information

**Shipping Name:** Combustible liquid, n.o.s.

**Hazard Class:** Combustible liquid

**UN/NA #:** NA1993

**Packing Group:** III

**Required Label(s):** None

**Additional Info.:** The reclassification of this material from flammable liquid to combustible applies only to domestic ground transportation. If shipped by air or water the following classification would be most appropriate:

Shipping Name: Flammable liquid, n.o.s (Contains Dipropylene glycol monomethyl ether, Proaprgyl alcohol, Methyl butynol, Dimethyl-1-hexyn-3-ol, 3,5)

UN/NA #: UN1993

Packing Group: III

Required Label(s): FLAMMABLE LIQUID

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## \*\*\* Section 15 - Regulatory Information \*\*\*

### US Federal Regulations

#### A: General Product Information

No additional information available.

#### B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

##### Dipropylene glycol monomethyl ether (Proprietary)

SARA 313: form R reporting required for 1.0% de minimis concentration (applies to R-(OCH<sub>2</sub>CH<sub>2</sub>)<sub>n</sub>-OR' ethers, where n = 1,2, or 3'; R=alkyl C7 or less or R = phenyl or alkyl subst. phenyl; R' = H or alkyl C7 or less, or OR' consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate) (related to Glycol ethers)

CERCLA: (Includes mono- and di- ethers of ethylene glycol; diethylene glycol and triethylene glycol R-(OCH<sub>2</sub>CH<sub>2</sub>)<sub>n</sub>-OR' where n = 1 2 or 3; R = alkyl or aryl groups; R' = R h or groups which when removed yield glycol ethers with the structure R-(OCH<sub>2</sub>CH<sub>2</sub>)<sub>n</sub>-OH. Polymers are excluded from glycol category); Statutory RQ = 1 pound (.454 kg); no final RQ is being assigned to the generic or broad class (related to Glycol ethers)

##### Propargyl alcohol (Proprietary)

SARA 313: form R reporting required for 1.0% de minimis concentration

CERCLA: final RQ = 1000 pounds (454 kg)

### State Regulations

#### A: General Product Information

No additional information available.

#### B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA
Dipropylene glycol monomethyl ether	Proprietary	Yes	Yes	Yes	Yes	Yes	Yes
Propargyl alcohol	Proprietary	Yes	Yes	Yes	Yes	Yes	Yes
Methenamine	Proprietary	No	No	No	No	Yes	No
Methyl butynol	Proprietary	No	Yes	Yes	No	No	Yes

### Other Regulations

#### A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

#### B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
Dipropylene glycol monomethyl ether	Proprietary	Yes	Yes	Yes
Propargyl alcohol	Proprietary	Yes	Yes	Yes
Methenamine	Proprietary	Yes	Yes	Yes
Dimethyl-1-hexyn-3-ol, 3,5	Proprietary	Yes	Yes	Yes
Methyl butynol	Proprietary	Yes	Yes	Yes

#### C: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	
Dipropylene glycol monomethyl ether	Proprietary	1% item 669 (821)
Propargyl alcohol	Proprietary	1% item 1348 (186)
Methenamine	Proprietary	0.1% item 997 (1104)

## \*\*\* Section 16 - Other Information \*\*\*

### Other Information

The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

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### Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry. HEPA = High Efficiency Particulate Air

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This is the end of MSDS # MWI-011