

## SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

### 1. Identification

**Product identifier:** ACRIFIX(TM) MO 2080

#### Other means of identification

**CAS Number:** 586-62-9

#### Recommended restrictions

**Recommended use:** Adhesive

**Restrictions on use:** None known.

#### Manufacturer/Importer/Distributor Information

Company Name : Roehm America LLC  
299 Jefferson Road  
Parsippany, NJ 07054  
USA

Telephone : +1 800-225-0172

E-mail : product-regulatory-services@roehm.com

#### Manufacturer

#### Emergency telephone number:

24-Hour Health : +1 800 424 9300 (CHEMTREC - US & CANADA)

Emergency : +1 703 527 3887 (CHEMTREC WORLD)

### 2. Hazard(s) identification

#### Hazard Classification

##### Physical Hazards

Flammable liquids Category 3

##### Health Hazards

Aspiration Hazard Category 1

Skin sensitizer Category 1B

#### Environmental Hazards

Acute hazards to the aquatic environment Category 1

Chronic hazards to the aquatic environment Category 1

#### Label Elements

**Hazard Symbol:**



**Signal Word:** Danger

**Hazard Statement:** Flammable liquid and vapor.  
May be fatal if swallowed and enters airways.  
May cause an allergic skin reaction.  
Very toxic to aquatic life.  
Very toxic to aquatic life with long lasting effects.

**Precautionary Statements**

**Prevention:** Keep away from open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion proof electric equipment. Use non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

**Response:** IF SWALLOWED: Immediately call a POISON CENTER/doctor. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Specific treatment (see supplemental first aid instructions on this label). Do NOT induce vomiting. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. In case of fire: Use carbon dioxide for extinction. In case of fire: Use foam for extinction. Collect spillage. IF ON SKIN: Wash with plenty of soap and water.

**Storage:** Store in a well-ventilated place. Keep cool. Store locked up.

**Disposal:** Dispose of contents/container according to the local / regional/national/international waste disposal regulations.

**Hazard(s) not otherwise classified (HNOC):** None.

### 3. Composition/information on ingredients

**Substances**

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%) <sup>*</sup>
Terpinolene		586-62-9	>=90%

<sup>\*</sup> All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**Composition Comments:** Solvent

The exact concentration has been withheld as a trade secret.

## 4. First-aid measures

### Description of necessary first-aid measures

**General information:** First aider needs to protect himself. Take off all contaminated clothing immediately. Medical treatment is necessary if symptoms occur which are obviously caused by skin or eye contact with the product or by inhalation of its vapours.

**Inhalation:** If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If unconscious, evaluate the need for artificial respiration. Get immediate medical attention.

**Skin Contact:** In case of contact, wash skin with soap and water. Remove contaminated clothing and shoes. Obtain medical attention if irritation develops or persists. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eye contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

**Ingestion:** If swallowed, DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention. If swallowed, rinse mouth with water (only if the person is conscious).

**Personal Protection for First-aid Responders:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear., Containers can build up pressure if exposed to heat (fire).

### Most important symptoms/effects, acute and delayed

**Symptoms:** Sensitization

**Hazards:** Aspiration Hazard

### Indication of immediate medical attention and special treatment needed

**Treatment:** Treat symptomatically.

## 5. Fire-fighting measures

**General Fire Hazards:** Flammable liquid. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint. Toxic vapors may be given off at high temperatures. Use water spray to cool unopened containers.

### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** Water spray, foam, CO2, dry powder.

**Unsuitable extinguishing media:** High volume water jet

**Specific hazards arising from the chemical:** May be released in case of fire: carbon monoxide, carbon dioxide, organic products of decomposition.

### Special protective equipment and precautions for firefighters

**Special fire fighting procedures:** Keep away from sources of ignition - No smoking. Take action to prevent static discharges. In the event of fire, cool the endangered containers with water. When heated above the flash point and/or during spraying (atomizing), ignitable mixtures may form in air. Vapours are heavier than air and may spread along floors.

**Special protective equipment for fire-fighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Containers can build up pressure if exposed to heat (fire).

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** Ensure adequate ventilation. Use personal protective equipment. Do not breathe vapours or spray mist. Keep away sources of ignition. Do not eat, drink or smoke when using this product. Wash hands thoroughly with soap and water after handling. Evacuate personnel to safe areas. Vapours can form explosive mixtures with air. Refer to protective measures listed in sections 7 and 8.

**Methods and material for containment and cleaning up:** Remove sources of ignition and ventilate area. Absorb spill with inert material and place in a chemical waste container. Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil. Wash thoroughly after handling. After removal, flush contaminated area with water and collect for disposal.

**Environmental Precautions:** Do not contaminate any lakes, streams, ponds, groundwater or soil. Retain and dispose of contaminated wash water.

## 7. Handling and storage

### Handling

**Technical measures (e.g. Local and general ventilation):** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment.

**Safe handling advice:** Keep away from sources of ignition - No smoking. Take action to prevent static discharges. In the event of fire, cool the endangered containers with water. When heated above the flash point and/or during spraying (atomizing), ignitable mixtures may form in air. Vapours are heavier than air and may spread along floors. Do not breathe vapors. Avoid contact with skin and eyes. Do not eat, drink or smoke during use. Keep away from heat. Keep away from sparks, flames and other sources of ignition. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Avoid breathing mist or vapor. Avoid ingestion of substance. Keep container tightly closed. Use only with adequate ventilation. The need for grounding and bonding of containers in accordance with OSHA 29 CFR 1910.106 and NFPA 77 should be assessed for all product transfers. Container hazardous when empty. Follow all SDS/label precautions even after the container is emptied because it may retain product residues. Residual vapors might explode on ignition; do not apply heat, cut, drill, grind or weld on or near this container. A safety shower and eye wash fountain should be readily available. To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

**Contact avoidance measures:** No data available.

**Hygiene measures:** Store work clothing separately. Take off all contaminated clothing immediately. Follow the usual good standards of occupational hygiene. Clean skin thoroughly after work; apply skin cream.

## Storage

**Safe storage conditions:** Improper disposal or re-use of this container may be dangerous and illegal. Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from sunlight.

**Safe packaging materials:** No data available.

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Terpinolene	ST ESL	1,000 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (06 2018)
	AN ESL	100 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality), as amended (06 2018)

**Appropriate Engineering Controls** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment.

#### Individual protection measures, such as personal protective equipment

**Eye/face protection:** Use safety glasses (ANSI Z87.1 or approved equivalent).

## Skin Protection

### Hand Protection:

Material: nitrile rubber gloves (minimal thickness 0.4 mm)  
Break-through time: 480 min  
Guideline: EN 374  
Additional Information: Gloves should be replaced regularly, especially after extended contact with the product., For each work-place a suitable glove type has to be selected., Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

### Skin and Body Protection:

Use chemically resistant apron or other impervious clothing to avoid prolonged or repeated skin contact. Choose body protection according to the amount and concentration of the dangerous substance at the work place. On handling of larger quantities: face mask, chemical-resistant boots and apron

### Respiratory Protection:

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

### Hygiene measures:

Store work clothing separately. Take off all contaminated clothing immediately. Follow the usual good standards of occupational hygiene. Clean skin thoroughly after work; apply skin cream.

## 9. Physical and chemical properties

### Appearance

<b>Physical state:</b>	liquid
<b>Form:</b>	liquid
<b>Color:</b>	colourless to slightly yellow
<b>Odor:</b>	Characteristic
<b>Odor Threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Freezing point:</b>	No data available.
<b>Boiling Point:</b>	approx. 184 - 185 °C 363 - 365 °F (literature value)
<b>Flash Point:</b>	>= 60 °C (literature value) >= 140 °F (literature value)
<b>Evaporation Rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	Not applicable
<b>Explosive limit - upper (%):</b>	6.8 %(V) (literature value)
<b>Explosive limit - lower (%):</b>	0.8 %(V) (literature value)
<b>Vapor pressure:</b>	0.7 hPa (20 °C) 0.7 hPa (68 °F)
<b>Vapor density (air=1):</b>	5.46
<b>Density:</b>	0.86 g/cm <sup>3</sup> (68.00 °F)
<b>Relative density:</b>	0.861 (25 °C) (77 °F)
<b>Solubility in Water:</b>	not miscible or only partially miscible (literature)
<b>Solubility (other):</b>	miscible with most organic solvents

<b>Partition coefficient (n-octanol/water):</b>	4.47
<b>Self Ignition Temperature:</b>	No data available.
<b>Decomposition Temperature:</b>	This product is stable under normal storage conditions.
<b>Kinematic viscosity:</b>	No data available.
<b>Dynamic viscosity:</b>	No data available.
<b>Other information</b>	
<b>Explosive properties:</b>	No data available.
<b>Oxidizing properties:</b>	No data available.
<b>Minimum ignition temperature:</b>	No data available.

## 10. Stability and reactivity

<b>Reactivity:</b>	No data available.
<b>Chemical Stability:</b>	This product is stable under normal storage conditions.
<b>Possibility of hazardous reactions:</b>	Product will not undergo polymerization.
<b>Conditions to avoid:</b>	Avoid temperatures above 200°C / 392°F. Keep away from all ignition sources including heat, sparks and flame. Keep away from direct sunlight.
<b>Incompatible Materials:</b>	Reactions with strong oxidizing agents.
<b>Hazardous Decomposition Products:</b>	Under conditions of thermal decomposition: Carbon oxides Hydrocarbons.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation:</b>	Relevant route of exposure. Information on effects are given below.
<b>Skin Contact:</b>	Prolonged skin contact may cause redness and irritation.
<b>Eye contact:</b>	May irritate eyes.
<b>Ingestion:</b>	If handled correctly, not a relevant route of exposure. Information on effects are given below.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Inhalation:</b>	No specific symptoms noted.
<b>Skin Contact:</b>	This material contains a component which may cause skin sensitization.
<b>Eye contact:</b>	Eye may become red, tear, and become painful.
<b>Ingestion:</b>	Minute amounts aspirated into the lungs during ingestion or vomiting may cause severe pulmonary injury and death.

## Information on toxicological effects

### Acute toxicity (list all possible routes of exposure)

#### Oral

**Product:** LD50 (Rat): 3,790 mg/kg [Related to substance: terpinolene]

#### Dermal

**Product:** LD50 (Rabbit): > 5,000 mg/kg [Related to substance: terpinolene]

#### Inhalation

**Product:** Based on available data, the classification criteria are not met.

### Repeated dose toxicity

**Product:** No data available.

### Skin Corrosion/Irritation

**Product:** Contact with skin may cause irritations.

### Serious Eye Damage/Eye Irritation

**Product:** Contact with the eyes may cause irritation.

### Respiratory or Skin Sensitization

**Product:** , LLNA (Local Lymph Node Assay) (Mouse)Sensitising literature

### Carcinogenicity

**Product:** Not classified No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

### IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

### US. National Toxicology Program (NTP) Report on Carcinogens:

### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:

### Germ Cell Mutagenicity

#### In vitro

**Product:** No data available.

#### In vivo

**Product:** No data available.

### Reproductive toxicity

**Product:** Not classified

### Specific Target Organ Toxicity - Single Exposure

**Product:** Not classified no evidence for hazardous properties



## Specific Target Organ Toxicity - Repeated Exposure

**Product:** Not classified no evidence for hazardous properties

## Aspiration Hazard

**Product:** May be fatal if swallowed and enters airways.

**Other effects:** Avoid skin and eye contact and inhalation of product vapours/aerosols.

## 12. Ecological information

### Ecotoxicity:

#### Acute hazards to the aquatic environment:

##### Fish

**Product:** LC 50 (Pimephales promelas, 96 h): 0.805 mg/l

##### Aquatic Invertebrates

**Product:** LC 50 (Daphnia magna, 48 h): 0.634 mg/l

#### Chronic hazards to the aquatic environment:

##### Fish

**Product:** No data available.

##### Aquatic Invertebrates

**Product:** No data available.

##### Toxicity to Aquatic Plants

**Product:** No data available.

### Persistence and Degradability

#### Biodegradation

**Product:** No data available.

#### Components:

Terpinolene 81 % (28 d, OECD TG 301 D) literature

#### BOD/COD Ratio

**Product:** No data available.

### Bioaccumulative potential

#### Bioconcentration Factor (BCF)

**Product:** Due to the distribution coefficient n-octanol/water, accumulation in organisms is possible.

### Partition Coefficient n-octanol / water (log Kow)

<b>Product:</b>	Log Kow: 4.47
<b>Mobility in soil:</b>	No data available.
<b>Components:</b> Terpinolene	No data available.
<b>Other adverse effects:</b>	Prevent substance from entering soil, natural bodies of water and sewer systems.

## 13. Disposal considerations

<b>General information:</b>	Dispose of waste and residues in accordance with local authority requirements.
<b>Disposal methods:</b>	Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method. Evonik encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste.
<b>Contaminated Packaging:</b>	Contaminated packaging should ideally be emptied; it can then be recycled after having been decontaminated. Packaging that cannot be cleaned should be disposed of professionally. Uncontaminated packaging may be taken for recycling. Empty containers must be handled with care due to product residue. <b>DO NOT HEAT OR CUT THE EMPTY CONTAINER WITH ELECTRIC OR GAS TORCH.</b>

## 14. Transport information

### Domestic regulation

#### 49 CFR

UN/ID/NA number : UN 2541  
Proper shipping name : Terpinolene

Class : 3  
Packing group : III  
Labels : 3  
ERG Code : 128  
Marine pollutant : yes

### International Regulations

#### IATA-DGR

UN/ID No. : UN 2541  
Proper shipping name : Terpinolene  
Class : 3  
Packing group : III  
Labels : 3  
Packing instruction (cargo aircraft) : 366  
Packing instruction (passenger aircraft) : 355

### IMDG-Code

UN number : UN 2541  
Proper shipping name : TERPINOLENE  
  
Class : 3  
Packing group : III  
Labels : 3  
EmS Code : F-E, S-E  
Marine pollutant : yes

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## 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. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

None present or none present in regulated quantities.

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended

None present or none present in regulated quantities.

#### CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

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## Superfund Amendments and Reauthorization Act of 1986 (SARA)

### Hazard categories

Flammable (gases, aerosols, liquids, or solids), Respiratory or Skin Sensitization, Aspiration Hazard

### US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

None present or none present in regulated quantities.

### US. EPCRA (SARA Title III) Section 312 Extremely Hazardous Substances Reporting Quantities (40 CFR 355, Appendix A)

#### Chemical Identity

Not regulated.

#### Threshold Planning Quantity

### US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

None present or none present in regulated quantities.

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

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.

## US State Regulations

### US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

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

#### Chemical Identity

Terpinolene

### US. Massachusetts RTK - Substance List

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

### US. Pennsylvania RTK - Hazardous Substances

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

### US. Rhode Island RTK

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

**16. Other information, including date of preparation or last revision**

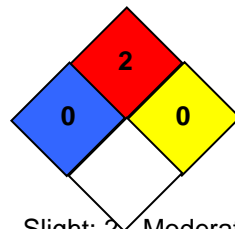
**HMIS Hazard ID**

<b>Health</b>	1
<b>Flammability</b>	2
<b>Physical Hazards</b>	0
<b>PERSONAL PROTECTION</b>	
	<b>B</b>

B - Safety Glasses & Gloves

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; \*Chronic health effect

**NFPA Hazard ID**



- Flammability
- Health
- Reactivity
- Special hazard.

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

**Issue Date:** 02/18/2020

**Version #:** 1.2

**Further Information:** none

**Revision Information** Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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