# Safety Data Sheet

Copyright,2026, 3M Company.All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

| | | | |
|---|---|---|---|
| **Document group:** | 05-8564-6 | **Version number:** | 5.00 |
| **Issue Date:** | 24/06/2026 | **Supersedes date:** | 20/04/2026 |

This Safety Data Sheet has been prepared in accordance with the South African National Standard SANS 10234:2008.

## SECTION 1: Identification

### 1.1. Product identifier
3M™ Adhesive 847

**Product Identification Numbers**
FS-9100-0633-7

### 1.2. Recommended use and restrictions on use

**Recommended use**
Adhesive

### 1.3. Supplier's details
**Address:** 3M South Africa (Pty) Ltd, Private Bag X926, Rivonia 2128
**Telephone:** 011 806 2000
**E Mail:** Not available.
**Website:** www.3m.co.za

### 1.4. Emergency telephone number
011 806 2000

## SECTION 2: Hazard identification

### 2.1. Classification of the substance or mixture
Flammable Liquid: Category 2.
Serious Eye Damage/Irritation: Category 1.
Skin Sensitizer: Category 1A.
Carcinogenicity: Category 2.
Reproductive Toxicity: Category 2.
Specific Target Organ Toxicity (single exposure): Category 3.
Acute Aquatic Toxicity: Category 2.
Chronic Aquatic Toxicity: Category 2.

### 2.2. Label elements

**Signal word**
Danger

**Symbols**
Flame |Corrosion |Exclamation mark |Health Hazard |Environment |

**Pictograms**



**HAZARD STATEMENTS:**

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H318 | Causes serious eye damage. |
| H317 | May cause an allergic skin reaction. |
| H351 | Suspected of causing cancer. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H336 | May cause drowsiness or dizziness. |
| H411 | Toxic to aquatic life with long lasting effects. |

**PRECAUTIONARY STATEMENTS**

**Prevention:**

| | |
|---|---|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. |
| P273 | Avoid release to the environment. |
| P280I | Wear protective gloves, eye protection, face protection, and respiratory protection. |

**Response:**

| | |
|---|---|
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTER or doctor/physician. |
| P333 + P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P370 + P378 | In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish. |
| P391 | Collect spillage. |

**2.3. Other hazards**
Repeated exposure may cause skin dryness or cracking.

## SECTION 3: Composition/information on ingredients

This material is a mixture.

| Ingredient | CAS Nbr | % by Wt |
|---|---|---|
| Acetone | 67-64-1 | 60 - 70 |
| Acrylonitrile - butadiene polymer | 9003-18-3 | 10 - 20 |
| FUMARATED ROSIN | 65997-04-8 | < 10 |
| Resin acids and rosin acids, esters with glycerol | 8050-31-5 | 5 - 10 |
| Phenol-formaldehyde resin | Trade Secret | 1 - 10 |
| Salicylic acid | 69-72-7 | < 3 |
| Zinc oxide | 1314-13-2 | < 2.5 |

| | | |
|---|---|---|
| p-Tert-Butylphenol | 98-54-4 | < 0.5 |

# SECTION 4: First aid measures

**4.1. Description of first aid measures**

**Inhalation**
Remove person to fresh air. If you feel unwell, get medical attention.

**Skin contact**
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

**Eye contact**
Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

**If swallowed**
Rinse mouth. If you feel unwell, get medical attention.

**4.2. Most important symptoms and effects, both acute and delayed**

Allergic skin reaction (redness, swelling, blistering, and itching). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness).

**4.3. Indication of any immediate medical attention and special treatment required**
Not applicable.

# SECTION 5: Fire-fighting measures

**5.1. Suitable extinguishing media**
In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

**5.2. Special hazards arising from the substance or mixture**
Closed containers exposed to heat from fire may build pressure and explode.

**Hazardous Decomposition or By-Products**

| Substance | Condition |
|---|---|
| Aldehydes. | During combustion. |
| Hydrocarbons. | During combustion. |
| Carbon monoxide. | During combustion. |
| Carbon dioxide. | During combustion. |
| Hydrogen cyanide. | During combustion. |
| Ketones. | During combustion. |
| Oxides of nitrogen. | During combustion. |

**5.3. Special protective actions for fire-fighters**
Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

# SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**
Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools.

Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. WARNING ! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS.

**6.2. Environmental precautions**
Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

**6.3. Methods and material for containment and cleaning up**
Contain spill. Cover spill area with a fire-extinguishing foam. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**
For industrial/occupational use only. Not for consumer sale or use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (eg. gloves, respirators…) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

**7.2. Conditions for safe storage including any incompatibilities**
Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from acids. Store away from oxidising agents.

## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**

**Occupational exposure limits**
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

| Ingredient | CAS Nbr | Agency | Limit type | Additional comments |
|---|---|---|---|---|
| Zinc oxide | 1314-13-2 | ACGIH | TWA(respirable fraction):2 mg/m3;STEL(respirable fraction):10 mg/m3 | |
| Zinc oxide | 1314-13-2 | South Africa | TWA(respirable fraction)(8 | |

| | | | | |
|---|---|---|---|---|
| | | RELs | hours):4 mg/m3;STEL(respirable fraction)(15 minutes):20 mg/m3 | |
| Acetone | 67-64-1 | ACGIH | TWA:250 ppm;STEL:500 ppm | A4: Not class. as human carcin |
| Acetone | 67-64-1 | South Africa RELs | TWA(8 hours):500 ppm;STEL(15 minutes):1000 ppm | |

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
South Africa CLs : South Africa. Control Limits. Regulations for Hazardous Chemical Substances, Table 1
South Africa RELs : South Africa. Recommended Exposure Limits (RELs) Regulations for Hazardous Chemical Substances, Table 2
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

**8.2. Exposure controls**

**8.2.1. Engineering controls**
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment. Use explosion-proof ventilation equipment.

**8.2.2. Personal protective equipment (PPE)**

**Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Full face shield.
Indirect vented goggles.

**Skin/hand protection**
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

Gloves made from the following material(s) are recommended: Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (e.g., spraying, high splash potential, etc.), then use of a protective apron may be necessary. See recommended glove material(s) for determining appropriate apron material(s). If a glove material is not available as an apron, polymer laminate is a suitable option.

**Respiratory protection**

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates
Organic vapor cartridges may have short service life.

For questions about suitability for a specific application, consult with your respirator manufacturer.

# SECTION 9: Physical and chemical properties

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

| | |
|---|---|
| **Physical state** | Liquid. |
| **Specific Physical Form:** | Viscous. |
| **Colour** | Brown |
| **Odor** | Acetone |
| **Odour threshold** | *No data available.* |
| **pH** | *No data available.* |
| **Melting point/Freezing point** | *No data available.* |
| **Boiling point/Initial boiling point/Boiling range** | 55,8 - 56,6 ºC [*Details:*Acetone value] |
| **Flash point** | -17 ºC [*Test Method:*Closed Cup] |
| **Evaporation rate** | *No data available.* |
| **Flammability** | Flammable Liquid: Category 2. |
| **Flammable Limits(LEL)** | *No data available.* |
| **Flammable Limits(UEL)** | *No data available.* |
| **Vapour pressure** | *No data available.* |
| **Relative Vapor Density** | *No data available.* |
| **Density** | 0,9 g/cm3 |
| **Relative density** | 0,87 - 0,9 [*Ref Std:*WATER=1] |
| **Water solubility** | Slight (less than 10%) |
| **Solubility- non-water** | *No data available.* |
| **Partition coefficient: n-octanol/water** | *No data available.* |
| **Autoignition temperature** | *No data available.* |
| **Decomposition temperature** | *No data available.* |
| **Kinematic Viscosity** | 1 667 mm²/sec |
| **Volatile organic compounds (VOC)** | 580 g/l |
| **Percent volatile** | ± 65 % weight |
| **VOC less H2O & exempt solvents** | *No data available.* |

| | |
|---|---|
| **Particle Characteristics** | *Not applicable.* |

# SECTION 10: Stability and reactivity

**10.1 Reactivity**
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

**10.2 Chemical stability**
Stable.

**10.3 Possibility of hazardous reactions**
Hazardous polymerisation will not occur.

**10.4 Conditions to avoid**
Heat.
Sparks and/or flames.

**10.5 Incompatible materials**
Strong oxidising agents.

**10.6 Hazardous decomposition products**

| Substance | Condition |
|---|---|
| None known. | |

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

**The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.**

**11.1 Information on Toxicological effects**

**Signs and Symptoms of Exposure**

**Based on test data and/or information on the components, this material may produce the following health effects:**

**Inhalation**
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

**Skin contact**
Prolonged or repeated exposure may cause: Dermal Defatting: Signs/symptoms may include localized redness, itching, drying and cracking of skin. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

**Eye contact**
Corrosive (eye burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

**Ingestion**
Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

**Additional Health Effects:**

**Single exposure may cause target organ effects:**
Central nervous system (CNS) depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

**Reproductive/Developmental Toxicity:**
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

**Carcinogenicity:**
Contains a chemical or chemicals which can cause cancer.

**Toxicological Data**
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

**Acute Toxicity**

| Name | Route | Species | Value |
|---|---|---|---|
| Overall product | Ingestion | | No data available; calculated ATE >5 000 mg/kg |

| | | | |
|---|---|---|---|
| Acetone | Dermal | Rabbit | LD50 > 15 688 mg/kg |
| Acetone | Inhalation-Vapor (4 hours) | Rat | LC50 76 mg/l |
| Acetone | Ingestion | Rat | LD50 5 800 mg/kg |
| Acrylonitrile - butadiene polymer | Dermal | Rabbit | LD50 > 15 000 mg/kg |
| Acrylonitrile - butadiene polymer | Ingestion | Rat | LD50 > 30 000 mg/kg |
| Resin acids and rosin acids, esters with glycerol | Dermal | Rabbit | LD50 > 5 000 mg/kg |
| FUMARATED ROSIN | Dermal | Rat | LD50 > 2 000 mg/kg |
| FUMARATED ROSIN | Ingestion | Rat | LD50 > 2 000 mg/kg |
| Resin acids and rosin acids, esters with glycerol | Ingestion | Rat | LD50 > 2 000 mg/kg |
| Phenol-formaldehyde resin | Dermal | | LD50 estimated to be > 5 000 mg/kg |
| Phenol-formaldehyde resin | Ingestion | Rat | LD50 5 660 mg/kg |
| Salicylic acid | Dermal | Rat | LD50 > 2 000 mg/kg |
| Salicylic acid | Ingestion | Rat | LD50 891 mg/kg |
| Zinc oxide | Dermal | | LD50 estimated to be > 5 000 mg/kg |
| Zinc oxide | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 5,7 mg/l |
| Zinc oxide | Ingestion | Rat | LD50 > 5 000 mg/kg |
| p-Tert-Butylphenol | Dermal | Rabbit | LD50 2 318 mg/kg |
| p-Tert-Butylphenol | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 5,6 mg/l |
| p-Tert-Butylphenol | Ingestion | Rat | LD50 4 000 mg/kg |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name | Species | Value |
|---|---|---|
| Acetone | Mouse | Minimal irritation |
| Acrylonitrile - butadiene polymer | Professional judgement | No significant irritation |
| FUMARATED ROSIN | Rabbit | No significant irritation |
| Resin acids and rosin acids, esters with glycerol | Rabbit | Minimal irritation |
| Salicylic acid | Rabbit | No significant irritation |
| Zinc oxide | Human and animal | No significant irritation |
| p-Tert-Butylphenol | Rabbit | Irritant |

**Serious Eye Damage/Irritation**

| Name | Species | Value |
|---|---|---|
| Acetone | Rabbit | Severe irritant |
| Acrylonitrile - butadiene polymer | Professional judgement | No significant irritation |
| FUMARATED ROSIN | Rabbit | Corrosive |
| Resin acids and rosin acids, esters with glycerol | Rabbit | Mild irritant |
| Salicylic acid | Rabbit | Corrosive |
| Zinc oxide | Rabbit | Mild irritant |
| p-Tert-Butylphenol | Rabbit | Corrosive |

**Sensitization:**

**Skin Sensitisation**

| Name | Species | Value |
|---|---|---|
| FUMARATED ROSIN | Mouse | Sensitising |

| | | |
|---|---|---|
| Resin acids and rosin acids, esters with glycerol | Guinea pig | Not classified |
| Phenol-formaldehyde resin | Human | Some positive data exist, but the data are not sufficient for classification |
| Salicylic acid | Mouse | Not classified |
| Zinc oxide | Guinea pig | Not classified |
| p-Tert-Butylphenol | Human and animal | Not classified |

**Photosensitisation**

| Name | Species | Value |
|---|---|---|
| Salicylic acid | Mouse | Not sensitizing |

**Respiratory Sensitisation**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Germ Cell Mutagenicity**

| Name | Route | Value |
|---|---|---|
| Acetone | In vivo | Not mutagenic |
| Acetone | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| FUMARATED ROSIN | In Vitro | Not mutagenic |
| Resin acids and rosin acids, esters with glycerol | In Vitro | Not mutagenic |
| Salicylic acid | In Vitro | Not mutagenic |
| Salicylic acid | In vivo | Not mutagenic |
| Zinc oxide | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Zinc oxide | In vivo | Some positive data exist, but the data are not sufficient for classification |
| p-Tert-Butylphenol | In Vitro | Not mutagenic |

**Carcinogenicity**

| Name | Route | Species | Value |
|---|---|---|---|
| Acetone | Not specified. | Multiple animal species | Not carcinogenic |
| p-Tert-Butylphenol | Ingestion | Multiple animal species | Some positive data exist, but the data are not sufficient for classification |

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

| Name | Route | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|
| Acetone | Ingestion | Not classified for male reproduction | Rat | NOAEL 1 700 mg/kg/day | 13 weeks |
| Acetone | Inhalation | Not classified for development | Rat | NOAEL 5,2 mg/l | during organogenesis |
| FUMARATED ROSIN | Ingestion | Not classified for female reproduction | Rat | NOAEL 450 mg/kg/day | premating into lactation |
| FUMARATED ROSIN | Ingestion | Not classified for male reproduction | Rat | NOAEL 650 mg/kg/day | 28 days |
| FUMARATED ROSIN | Ingestion | Not classified for development | Rat | NOAEL 370 mg/kg/day | during gestation |
| Salicylic acid | Ingestion | Toxic to development | Rat | NOAEL 75 mg/kg/day | during organogenesis |
| Zinc oxide | Ingestion | Not classified for reproduction and/or | Multiple | NOAEL 125 | premating & |

| | | | | | |
|---|---|---|---|---|---|
| | | development | animal species | mg/kg/day | during gestation |
| p-Tert-Butylphenol | Ingestion | Not classified for male reproduction | Rat | NOAEL 600 mg/kg/day | 2 generation |
| p-Tert-Butylphenol | Ingestion | Not classified for development | Rat | NOAEL 70 mg/kg/day | 2 generation |
| p-Tert-Butylphenol | Ingestion | Toxic to female reproduction | Rat | NOAEL 200 mg/kg/day | 2 generation |

## Target Organ(s)

### Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|---|
| Acetone | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Acetone | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| Acetone | Inhalation | immune system | Not classified | Human | NOAEL 1,19 mg/l | 6 hours |
| Acetone | Inhalation | liver | Not classified | Guinea pig | NOAEL Not available | |
| Acetone | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | poisoning and/or abuse |
| FUMARATED ROSIN | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available. | |
| p-Tert-Butylphenol | Inhalation | respiratory irritation | May cause respiratory irritation | Rat | LOAEL 5,6 mg/l | 4 hours |

### Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test result | Exposure Duration |
|---|---|---|---|---|---|---|
| Acetone | Dermal | eyes | Not classified | Guinea pig | NOAEL Not available | 3 weeks |
| Acetone | Inhalation | hematopoietic system | Not classified | Human | NOAEL 3 mg/l | 6 weeks |
| Acetone | Inhalation | immune system | Not classified | Human | NOAEL 1,19 mg/l | 6 days |
| Acetone | Inhalation | kidney and/or bladder | Not classified | Guinea pig | NOAEL 119 mg/l | not available |
| Acetone | Inhalation | heart | Not classified | Rat | NOAEL 45 mg/l | 8 weeks |
| Acetone | Inhalation | liver | Not classified | Rat | NOAEL 45 mg/l | 8 weeks |
| Acetone | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 900 mg/kg/day | 13 weeks |
| Acetone | Ingestion | heart | Not classified | Rat | NOAEL 2 500 mg/kg/day | 13 weeks |
| Acetone | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 200 mg/kg/day | 13 weeks |
| Acetone | Ingestion | liver | Not classified | Mouse | NOAEL 3 896 mg/kg/day | 14 days |
| Acetone | Ingestion | eyes | Not classified | Rat | NOAEL 3 400 mg/kg/day | 13 weeks |
| Acetone | Ingestion | respiratory system | Not classified | Rat | NOAEL 2 500 mg/kg/day | 13 weeks |
| Acetone | Ingestion | muscles | Not classified | Rat | NOAEL 2 500 mg/kg | 13 weeks |
| Acetone | Ingestion | skin | Not classified | Mouse | NOAEL 11 298 | 13 weeks |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | mg/kg/day | |
| Acetone | Ingestion | bone, teeth, nails, and/or hair | Not classified | Mouse | NOAEL 11 298 mg/kg/day | 13 weeks |
| FUMARATED ROSIN | Ingestion | endocrine system | Not classified | Rat | NOAEL 450 mg/kg/day | 53 days |
| FUMARATED ROSIN | Ingestion | immune system | Not classified | Rat | NOAEL 450 mg/kg/day | 53 days |
| FUMARATED ROSIN | Ingestion | nervous system | Not classified | Rat | NOAEL 705 mg/kg/day | 90 days |
| FUMARATED ROSIN | Ingestion | eyes | Not classified | Rat | NOAEL 705 mg/kg/day | 90 days |
| FUMARATED ROSIN | Ingestion | gastrointestinal tract | Not classified | Rat | NOAEL 450 mg/kg/day | 53 days |
| FUMARATED ROSIN | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 450 mg/kg/day | 53 days |
| FUMARATED ROSIN | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 450 mg/kg/day | 53 days |
| FUMARATED ROSIN | Ingestion | respiratory system | Not classified | Rat | NOAEL 450 mg/kg/day | 53 days |
| Resin acids and rosin acids, esters with glycerol | Ingestion | liver | Not classified | Rat | NOAEL 5 000 mg/kg/day | 90 days |
| Resin acids and rosin acids, esters with glycerol | Ingestion | heart | Not classified | Rat | NOAEL 5 000 mg/kg/day | 90 days |
| Resin acids and rosin acids, esters with glycerol | Ingestion | skin | Not classified | Rat | NOAEL 5 000 mg/kg/day | 90 days |
| Resin acids and rosin acids, esters with glycerol | Ingestion | endocrine system | Not classified | Rat | NOAEL 5 000 mg/kg/day | 90 days |
| Resin acids and rosin acids, esters with glycerol | Ingestion | bone, teeth, nails, and/or hair | Not classified | Rat | NOAEL 5 000 mg/kg/day | 90 days |
| Resin acids and rosin acids, esters with glycerol | Ingestion | blood | Not classified | Rat | NOAEL 5 000 mg/kg/day | 90 days |
| Resin acids and rosin acids, esters with glycerol | Ingestion | bone marrow | Not classified | Rat | NOAEL 5 000 mg/kg/day | 90 days |
| Resin acids and rosin acids, esters with glycerol | Ingestion | hematopoietic system | Not classified | Rat | NOAEL 5 000 mg/kg/day | 90 days |
| Resin acids and rosin acids, esters with glycerol | Ingestion | immune system | Not classified | Rat | NOAEL 5 000 mg/kg/day | 90 days |
| Resin acids and rosin acids, esters with glycerol | Ingestion | muscles | Not classified | Rat | NOAEL 5 000 mg/kg/day | 90 days |
| Resin acids and rosin acids, esters with glycerol | Ingestion | nervous system | Not classified | Rat | NOAEL 5 000 mg/kg/day | 90 days |
| Resin acids and rosin acids, esters with glycerol | Ingestion | eyes | Not classified | Rat | NOAEL 5 000 mg/kg/day | 90 days |
| Resin acids and rosin acids, esters with glycerol | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 5 000 mg/kg/day | 90 days |
| Resin acids and rosin acids, esters with glycerol | Ingestion | respiratory system | Not classified | Rat | NOAEL 5 000 mg/kg/day | 90 days |
| Salicylic acid | Ingestion | liver | Not classified | Rat | NOAEL 500 mg/kg/day | 3 days |
| Zinc oxide | Ingestion | nervous system | Not classified | Rat | NOAEL 600 mg/kg/day | 10 days |
| Zinc oxide | Ingestion | endocrine system | Not classified | Other | NOAEL 500 mg/kg/day | 6 months |

| | | | | | | |
|---|---|---|---|---|---|---|
| Zinc oxide | Ingestion | hematopoietic system | Not classified | Other | NOAEL 500 mg/kg/day | 6 months |
| Zinc oxide | Ingestion | kidney and/or bladder | Not classified | Other | NOAEL 500 mg/kg/day | 6 months |
| p-Tert-Butylphenol | Ingestion | endocrine system | Not classified | Rat | NOAEL 600 mg/kg/day | 2 generation |
| p-Tert-Butylphenol | Ingestion | liver | Not classified | Rat | NOAEL 600 mg/kg/day | 2 generation |
| p-Tert-Butylphenol | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 600 mg/kg/day | 2 generation |
| p-Tert-Butylphenol | Ingestion | blood | Not classified | Rat | NOAEL 200 mg/kg | 6 weeks |

**Aspiration Hazard**
For the component/components, either no data are currently available or the data are not sufficient for classification.

**Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.**

## SECTION 12: Ecological information

**The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.**

**12.1. Toxicity**

**Acute aquatic hazard:**
GHS Acute 2: Toxic to aquatic life.

**Chronic aquatic hazard:**
GHS Chronic 2: Toxic to aquatic life with long lasting effects.

No product test data available.

| Material | CAS Nbr | Organism | Type | Exposure | Test endpoint | Test result |
|---|---|---|---|---|---|---|
| Acetone | 67-64-1 | Algae or other aquatic plants | Experimental | 96 hours | EC50 | 11 493 mg/l |
| Acetone | 67-64-1 | Invertebrate | Experimental | 24 hours | LC50 | 2 100 mg/l |
| Acetone | 67-64-1 | Rainbow trout | Experimental | 96 hours | LC50 | 5 540 mg/l |
| Acetone | 67-64-1 | Water flea | Experimental | 21 days | NOEC | 1 000 mg/l |
| Acetone | 67-64-1 | Bacteria | Experimental | 16 hours | NOEC | 1 700 mg/l |
| Acetone | 67-64-1 | Redworm | Experimental | 48 hours | LC50 | >100 |
| Acrylonitrile - butadiene polymer | 9003-18-3 | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| FUMARATED ROSIN | 65997-04-8 | Fathead minnow | Experimental | 96 hours | No tox obs at lmt of water sol | >100 mg/l |
| FUMARATED ROSIN | 65997-04-8 | Green algae | Experimental | 72 hours | No tox obs at lmt of water sol | >100 mg/l |
| FUMARATED ROSIN | 65997-04-8 | Water flea | Experimental | 48 hours | EL50 | >100 mg/l |
| FUMARATED ROSIN | 65997-04-8 | Green algae | Experimental | 72 hours | No tox obs at lmt of water sol | 100 mg/l |
| FUMARATED ROSIN | 65997-04-8 | Activated sludge | Analogous Compound | 3 hours | EC50 | >1 000 mg/l |
| Resin acids and rosin acids, esters with glycerol | 8050-31-5 | Green algae | Analogous Compound | 72 hours | No tox obs at lmt of water sol | >100 mg/l |

| | | | | | | |
|---|---|---|---|---|---|---|
| Resin acids and rosin acids, esters with glycerol | 8050-31-5 | Rainbow trout | Analogous Compound | 96 hours | No tox obs at lmt of water sol | >100 mg/l |
| Resin acids and rosin acids, esters with glycerol | 8050-31-5 | Water flea | Analogous Compound | 48 hours | EL50 | 27 mg/l |
| Resin acids and rosin acids, esters with glycerol | 8050-31-5 | Green algae | Analogous Compound | 72 hours | No tox obs at lmt of water sol | >100 mg/l |
| Phenol-formaldehyde resin | Trade Secret | N/A | Data not available or insufficient for classification | N/A | N/A | N/A |
| Salicylic acid | 69-72-7 | Green algae | Experimental | 72 hours | EC50 | >100 mg/l |
| Salicylic acid | 69-72-7 | Medaka | Experimental | 96 hours | LC50 | >100 mg/l |
| Salicylic acid | 69-72-7 | Water flea | Experimental | 48 hours | EC50 | 870 mg/l |
| Salicylic acid | 69-72-7 | Water flea | Experimental | 21 days | NOEC | 10 mg/l |
| Salicylic acid | 69-72-7 | Activated sludge | Experimental | 3 hours | EC50 | >3 200 |
| Salicylic acid | 69-72-7 | Bacteria | Experimental | 18 hours | EC10 | 465 |
| Zinc oxide | 1314-13-2 | Activated sludge | Estimated | 3 hours | EC50 | 6,5 mg/l |
| Zinc oxide | 1314-13-2 | Green algae | Estimated | 72 hours | EC50 | 0,052 mg/l |
| Zinc oxide | 1314-13-2 | Rainbow trout | Estimated | 96 hours | LC50 | 0,21 mg/l |
| Zinc oxide | 1314-13-2 | Water flea | Estimated | 48 hours | EC50 | 0,07 mg/l |
| Zinc oxide | 1314-13-2 | Green algae | Estimated | 72 hours | NOEC | 0,006 mg/l |
| Zinc oxide | 1314-13-2 | Water flea | Estimated | 7 days | NOEC | 0,02 mg/l |
| p-Tert-Butylphenol | 98-54-4 | Ciliated protozoa | Experimental | 60 hours | IC50 | 18,4 mg/l |
| p-Tert-Butylphenol | 98-54-4 | Green algae | Experimental | 72 hours | ErC50 | 14 mg/l |
| p-Tert-Butylphenol | 98-54-4 | Invertebrate | Experimental | 96 hours | LC50 | 1,9 mg/l |
| p-Tert-Butylphenol | 98-54-4 | Medaka | Experimental | 96 hours | LC50 | 5,1 mg/l |
| p-Tert-Butylphenol | 98-54-4 | Water flea | Experimental | 48 hours | EC50 | 3,9 mg/l |
| p-Tert-Butylphenol | 98-54-4 | Fathead minnow | Experimental | 128 days | NOEC | 0,01 mg/l |
| p-Tert-Butylphenol | 98-54-4 | Green algae | Experimental | 72 hours | NOEC | 0,32 mg/l |
| p-Tert-Butylphenol | 98-54-4 | Water flea | Experimental | 21 days | NOEC | 0,73 mg/l |

### 12.2. Persistence and degradability

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| Acetone | 67-64-1 | Experimental Biodegradation | 28 days | BOD | 78 %BOD/ThOD | OECD 301D - Closed bottle test |
| Acetone | 67-64-1 | Experimental Photolysis | | Photolytic half-life (in air) | 147 days (t 1/2) | |
| Acrylonitrile - butadiene polymer | 9003-18-3 | Data not availbl-insufficient | N/A | N/A | N/A | N/A |
| FUMARATED ROSIN | 65997-04-8 | Experimental Biodegradation | 28 days | BOD | 15 %BOD/ThOD | OECD 301D - Closed bottle test |
| Resin acids and rosin acids, esters with glycerol | 8050-31-5 | Analogous Compound Biodegradation | 28 days | CO2 evolution | 0 %CO2 evolution/THCO2 evolution | OECD 301B - Modified sturm or CO2 |
| Phenol-formaldehyde resin | Trade Secret | Experimental Biodegradation | 28 days | CO2 evolution | 0 %CO2 evolution/THCO2 evolution | |
| Salicylic acid | 69-72-7 | Experimental Biodegradation | 14 days | BOD | 88.1 %BOD/ThOD | OECD 301C - MITI test (I) |
| Zinc oxide | 1314-13-2 | Data not availbl-insufficient | N/A | N/A | N/A | N/A |
| p-Tert-Butylphenol | 98-54-4 | Experimental Biodegradation | 28 days | Dissolv. Organic Carbon Deplet | 98 %removal of DOC | EC C.4.A. DOC Die-Away Test |

### 12.3 : Bioaccumulative potential

| Material | CAS Nbr | Test type | Duration | Study Type | Test result | Protocol |
|---|---|---|---|---|---|---|
| Acetone | 67-64-1 | Experimental BCF | | Bioaccumulation | 0.65 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | - Other | | factor | | |
| Acetone | 67-64-1 | Experimental Bioconcentration | | Log Kow | -0.24 | |
| Acrylonitrile - butadiene polymer | 9003-18-3 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| FUMARATED ROSIN | 65997-04-8 | Experimental Bioconcentration | | Log Kow | ≥4.4 | OECD 117 log Kow HPLC method |
| Resin acids and rosin acids, esters with glycerol | 8050-31-5 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| Phenol-formaldehyde resin | Trade Secret | Estimated Bioconcentration | | Bioaccumulation factor | 7.4 | |
| Salicylic acid | 69-72-7 | Experimental Bioconcentration | | Log Kow | 2.26 | |
| Zinc oxide | 1314-13-2 | Experimental BCF - Fish | 56 days | Bioaccumulation factor | ≤217 | OECD305-Bioconcentration |
| p-Tert-Butylphenol | 98-54-4 | Experimental BCF - Fish | 56 days | Bioaccumulation factor | 88 | OECD305-Bioconcentration |
| p-Tert-Butylphenol | 98-54-4 | Experimental Bioconcentration | | Log Kow | 3 | OECD 117 log Kow HPLC method |

**12.4. Mobility in soil**
Please contact manufacturer for more details

**12.5 Other adverse effects**
No information available.

## SECTION 13: Disposal considerations

**13.1. Disposal methods**
Product must only be disposed of by an authorized/permitted waste disposal contractor or incinerated in an industrial or commercial facility in the presence of a combustible material.

## SECTION 14: Transport Information

Compliance is required to South African Transport Information Road Traffic Act & Regulations and Railroad regulations, IATA Standards for airfreight and Maritime standards for ocean freight.

## SECTION 15: Regulatory information

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Global inventory status**
Contact 3M for more information. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

## SECTION 16: Other information

**Revision information:**
Section 12: Component ecotoxicity information information was modified.
Section 12: Persistence and Degradability information information was modified.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to

satisfy themselves as to the suitability of the product for their own intended applications.

**3M South Africa SDSs are available at www.3m.co.za**