



## Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Minister of Industry Decree No. 23/M-IND/PER/4/2013 and GHS Classification 4th Edition.

|                        |            |                         |               |
|------------------------|------------|-------------------------|---------------|
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### SECTION 1: Identification

#### 1.1. Product identifier

3M(TM) Electrical Insulating Sealer 1602-R, Red

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Electrical

#### 1.3. Supplier's details

**ADDRESS:** PT. 3M Indonesia Jl. Diponegoro KM. 39 Tambun- Bekasi 17510 -Indonesia  
**Telephone:** +6221-27794000  
**E Mail:** IA-PRLGroup@mmm.com  
**Website:** www.mmm.com

#### 1.4. Emergency telephone number

(021)29974000

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

Flammable Aerosol: Category 1.  
Acute Toxicity (inhalation): Category 5.  
Serious Eye Damage/Irritation: Category 2A.  
Skin Sensitizer: Category 1.  
Reproductive Toxicity: Category 1B.  
Carcinogenicity: Category 2.  
Specific Target Organ Toxicity (single exposure): Category 1.  
Specific Target Organ Toxicity (central nervous system): Category 3.

#### 2.2. Label elements

##### Signal word

Danger

##### Symbols

Flame | Exclamation mark | Health Hazard |

#### Pictograms



#### Hazard statements

|      |                                                                               |
|------|-------------------------------------------------------------------------------|
| H222 | Extremely flammable aerosol.                                                  |
| H229 | Pressurized container: may burst if heated.                                   |
| H319 | Causes serious eye irritation.                                                |
| H317 | May cause an allergic skin reaction.                                          |
| H333 | May be harmful if inhaled.                                                    |
| H336 | May cause drowsiness or dizziness.                                            |
| H360 | May damage fertility or the unborn child.                                     |
| H351 | Suspected of causing cancer.                                                  |
| H370 | Causes damage to organs:<br>cardiovascular system  <br><br>respiratory system |

#### Precautionary statements

##### Prevention:

|       |                                                                    |
|-------|--------------------------------------------------------------------|
| P201  | Obtain special instructions before use.                            |
| P210  | Keep away from heat/sparks/open flames/hot surfaces. - No smoking. |
| P211  | Do not spray on an open flame or other ignition source.            |
| P251  | Do not pierce or burn, even after use.                             |
| P260  | Do not breathe dust/fume/gas/mist/vapors/spray.                    |
| P261  | Avoid breathing dust/fume/gas/mist/vapors/spray.                   |
| P271  | Use only outdoors or in a well-ventilated area.                    |
| P280E | Wear protective gloves.                                            |

##### Response:

|                    |                                                                                                                                  |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------|
| P304 + P312        | IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.                                                         |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P333 + P313        | If skin irritation or rash occurs: Get medical advice/attention.                                                                 |
| P308 + P311        | IF exposed or concerned: Call a POISON CENTER or doctor/physician.                                                               |
| P308 + P313        | IF exposed or concerned: Get medical advice/attention.                                                                           |

##### Storage:

|             |                                                                          |
|-------------|--------------------------------------------------------------------------|
| P410 + P412 | Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. |
| P405        | Store locked up.                                                         |

##### Disposal:

|      |                                                                                                                |
|------|----------------------------------------------------------------------------------------------------------------|
| P501 | Dispose of contents/container in accordance with applicable local/regional/national/international regulations. |
|------|----------------------------------------------------------------------------------------------------------------|

#### 2.3. Other hazards

Intentional misuse by deliberately concentrating and inhaling contents can be harmful or fatal.

## SECTION 3: Composition/information on ingredients

**3M(TM) Electrical Insulating Sealer 1602-R, Red**

This material is a mixture.

| <b>Ingredient</b>                             | <b>C.A.S. No.</b> | <b>% by Wt</b> |
|-----------------------------------------------|-------------------|----------------|
| METHYL ACETATE                                | 79-20-9           | 20 - 30        |
| METHYL ETHYL KETONE                           | 78-93-3           | 15 - 25        |
| PROPANE                                       | 74-98-6           | 12 - 18        |
| BUTANE                                        | 106-97-8          | 10 - 15        |
| Resin Epoxy Ester                             | Trade Secret      | 5 - 10         |
| BISPHENOL A-FORMALDEHYDE RESIN                | 25085-75-0        | 2 - 6          |
| METHYL ISOBUTYL KETONE                        | 108-10-1          | 3 - 6          |
| IRON OXIDE (FE <sub>2</sub> O <sub>3</sub> )  | 1309-37-1         | 2 - 5          |
| CALCIUM CARBONATE                             | 471-34-1          | 2 - 5          |
| N-BUTYL ACETATE                               | 123-86-4          | 2 - 5          |
| 2,2,4-TRIMETHYL-1,3-PENTANEDIOL DIISOBUTYRATE | 6846-50-0         | < 3            |
| TOLUENE                                       | 108-88-3          | 0.3 - 0.7      |
| Xylene                                        | 1330-20-7         | <= 0.5         |

**SECTION 4: First aid measures****4.1. Description of first aid measures****Inhalation:**

Remove person to fresh air. 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. Remove contact lenses if easy to do. Continue rinsing. 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**

See Section 11.1. Information on toxicological effects.

**4.3. Indication of any immediate medical attention and special treatment required**

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

**SECTION 5: Fire-fighting measures****5.1. Suitable extinguishing media**

In case of fire: Use a carbon dioxide extinguisher 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**

Carbon monoxide

**Condition**

During Combustion

## 3M(TM) Electrical Insulating Sealer 1602-R, Red

Carbon dioxide

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.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

### 6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

### 6.3. Methods and material for containment and cleaning up

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. Contain spill. Cover spill area with a fire-extinguishing foam designed for use on solvents, such as alcohols and acetone, that can dissolve in water. An AR - AFFF type foam is recommended. 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 authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Avoid breathing of vapors created during cure cycle. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/vapors/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. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) as required.

### 7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Store away from heat. Store away from acids. Store away from oxidizing 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 | C.A.S. No. | Agency | Limit type    | Additional Comments |
|------------|------------|--------|---------------|---------------------|
| BUTANE     | 106-97-8   | ACGIH  | STEL:1000 ppm |                     |

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|                        |           |                |                                                                     |                                |
|------------------------|-----------|----------------|---------------------------------------------------------------------|--------------------------------|
| BUTANE                 | 106-97-8  | Indonesia OELs | TWA(8 hours):1900 mg/m3(800 ppm)                                    |                                |
| Natural gas            | 106-97-8  | ACGIH          | Limit value not established:                                        |                                |
| METHYL ISOBUTYL KETONE | 108-10-1  | ACGIH          | TWA:20 ppm;STEL:75 ppm                                              | A3: Confirmed animal carcin.   |
| METHYL ISOBUTYL KETONE | 108-10-1  | Indonesia OELs | TWA(8 hours):20 ppm;STEL(15 minutes):75 ppm                         |                                |
| TOLUENE                | 108-88-3  | CMRG           | STEL:75 ppm                                                         | Skin Notation                  |
| TOLUENE                | 108-88-3  | Indonesia OELs | TWA(8 hours):188 mg/m3(50 ppm)                                      | Skin Notation                  |
| TOLUENE                | 108-88-3  | ACGIH          | TWA:20 ppm                                                          | A4: Not class. as human carcin |
| N-BUTYL ACETATE        | 123-86-4  | Indonesia OELs | TWA(8 hours):713 mg/m3(150 ppm);STEL(15 minutes):950 mg/m3(200 ppm) |                                |
| N-BUTYL ACETATE        | 123-86-4  | ACGIH          | TWA:150 ppm;STEL:200 ppm                                            |                                |
| IRON OXIDE (FE2O3)     | 1309-37-1 | ACGIH          | TWA(respirable fraction):5 mg/m3                                    | A4: Not class. as human carcin |
| ROUGE                  | 1309-37-1 | Indonesia OELs | TWA(inhalable particulates)(8 hours):10 mg/m3                       |                                |
| IRON OXIDE (FE2O3)     | 1309-37-1 | Indonesia OELs | TWA(as Fe, dust and fume)(8 hours):5 mg/m3                          |                                |
| Xylene                 | 1330-20-7 | CMRG           | TWA:50 ppm;STEL:75 ppm                                              |                                |
| Xylene                 | 1330-20-7 | Indonesia OELs | TWA(8 hours):434 mg/m3(100 ppm);STEL(15 minutes):651 mg/m3(150 ppm) |                                |
| Xylene                 | 1330-20-7 | ACGIH          | TWA:100 ppm;STEL:150 ppm                                            | A4: Not class. as human carcin |
| CALCIUM CARBONATE      | 471-34-1  | CMRG           | TWA:10 mg/m3;STEL:20 mg/m3                                          |                                |
| PROPANE                | 74-98-6   | ACGIH          | Limit value not established:                                        |                                |
| Alkanes, C1-4          | 74-98-6   | Indonesia OELs | TWA(8 hours):1000 ppm                                               |                                |
| METHYL ETHYL KETONE    | 78-93-3   | ACGIH          | TWA:200 ppm;STEL:300 ppm                                            |                                |
| METHYL ETHYL KETONE    | 78-93-3   | Indonesia OELs | TWA(8 hours):200 ppm;STEL(15 minutes):300 ppm                       |                                |
| METHYL ACETATE         | 79-20-9   | ACGIH          | TWA:200 ppm;STEL:250 ppm                                            |                                |
| METHYL ACETATE         | 79-20-9   | Indonesia OELs | TWA(8 hours):200 ppm;STEL(15 minutes):250 ppm                       |                                |

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

Indonesia OELs : Indonesia. Minister of Manpower and Transmigration Decree No. 13/MEN/X/2011 concerning Threshold Values, Chemical and Physical Factors in the Workplace.

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

## 8.2. Exposure controls

### 8.2.1. Engineering controls

Provide ventilated enclosure for heat curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. 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/vapors/spray. If ventilation is not adequate, use respiratory protection 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:

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.

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

### 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 vapors

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:        | Aerosol                                                      |
| Appearance/Odor                | AEROSOL, RED LIQUID WITH A KETONE ODOR                       |
| Odor threshold                 | No Data Available                                            |
| Flash Point                    | -8.9 °C [Test Method: Closed Cup] [Details: Methyl acetate.] |
| Evaporation rate               | No Data Available                                            |
| Flammability (solid, gas)      | Not Applicable                                               |
| Flammable Limits(LEL)          | 1.4 % [Details: Liquid portion.]                             |
| Flammable Limits(UEL)          | 16 % [Details: Liquid portion.]                              |
| Vapor Pressure                 | No Data Available                                            |
| Vapor Density                  | No Data Available                                            |
| Relative Density               | 0.8 [Ref Std: WATER=1] [Details: Liquid portion.]            |
| Solubility- non-water          | No Data Available                                            |
| Decomposition temperature      | No Data Available                                            |
| Percent volatile               | 86 % volume                                                  |
| VOC Less H2O & Exempt Solvents | 55 %                                                         |

## 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 polymerization will not occur.

### 10.4. Conditions to avoid

Heat

Sparks and/or flames

### 10.5. Incompatible materials

Strong oxidizing agents

### 10.6. Hazardous decomposition products

| <u>Substance</u> | <u>Condition</u> |
|------------------|------------------|
| Hydrocarbons     | Normal Use       |
| Ketones          | Normal Use       |

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 labeling, 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:

May be harmful if inhaled.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause target organ effects after inhalation.

#### Skin Contact:

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:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

#### Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause target organ effects after ingestion.

#### Target Organ Effects:

Single exposure may cause:

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Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

**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                               | Dermal                         |               | No data available; calculated ATE > 5,000 mg/kg |
| Overall product                               | Inhalation-Vapor(4 hr)         |               | No data available; calculated ATE 20 - 50 mg/l  |
| Overall product                               | Ingestion                      |               | No data available; calculated ATE > 5,000 mg/kg |
| METHYL ETHYL KETONE                           | Dermal                         | Rabbit        | LD50 > 8,050 mg/kg                              |
| METHYL ETHYL KETONE                           | Inhalation-Vapor (4 hours)     | Rat           | LC50 34.5 mg/l                                  |
| METHYL ETHYL KETONE                           | Ingestion                      | Rat           | LD50 2,737 mg/kg                                |
| METHYL ACETATE                                | Dermal                         | Rat           | LD50 > 2,000 mg/kg                              |
| METHYL ACETATE                                | Inhalation-Vapor (4 hours)     | Rat           | LC50 > 49 mg/l                                  |
| METHYL ACETATE                                | Ingestion                      | Rat           | LD50 > 5,000 mg/kg                              |
| PROPANE                                       | Inhalation-Gas (4 hours)       | Rat           | LC50 > 200,000 ppm                              |
| BUTANE                                        | Inhalation-Gas (4 hours)       | Rat           | LC50 277,000 ppm                                |
| METHYL ISOBUTYL KETONE                        | Dermal                         | Rabbit        | LD50 > 16,000 mg/kg                             |
| METHYL ISOBUTYL KETONE                        | Inhalation-Vapor (4 hours)     | Rat           | LC50 >8.2,<16.4 mg/l                            |
| METHYL ISOBUTYL KETONE                        | Ingestion                      | Rat           | LD50 3,038 mg/kg                                |
| N-BUTYL ACETATE                               | Dermal                         | Rabbit        | LD50 > 5,000 mg/kg                              |
| N-BUTYL ACETATE                               | Inhalation-Dust/Mist (4 hours) | Rat           | LC50 1.4 mg/l                                   |
| N-BUTYL ACETATE                               | Inhalation-Vapor (4 hours)     | Rat           | LC50 > 20 mg/l                                  |
| N-BUTYL ACETATE                               | Ingestion                      | Rat           | LD50 > 8,800 mg/kg                              |
| IRON OXIDE (FE2O3)                            | Dermal                         | Not available | LD50 3,100 mg/kg                                |
| IRON OXIDE (FE2O3)                            | Ingestion                      | Not available | LD50 3,700 mg/kg                                |
| CALCIUM CARBONATE                             | Dermal                         | Rat           | LD50 > 2,000 mg/kg                              |
| CALCIUM CARBONATE                             | Inhalation-Dust/Mist (4 hours) | Rat           | LC50 3.0 mg/l                                   |
| CALCIUM CARBONATE                             | Ingestion                      | Rat           | LD50 6,450 mg/kg                                |
| 2,2,4-TRIMETHYL-1,3-PENTANEDIOL DIISOBUTYRATE | Dermal                         | Guinea pig    | LD50 > 18,800 mg/kg                             |

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|                                               |                                |        |                    |
|-----------------------------------------------|--------------------------------|--------|--------------------|
| 2,2,4-TRIMETHYL-1,3-PENTANEDIOL DIISOBUTYRATE | Inhalation-Dust/Mist (4 hours) | Rat    | LC50 > 8 mg/l      |
| 2,2,4-TRIMETHYL-1,3-PENTANEDIOL DIISOBUTYRATE | Ingestion                      | Rat    | LD50 > 3,200 mg/kg |
| TOLUENE                                       | Dermal                         | Rat    | LD50 12,000 mg/kg  |
| TOLUENE                                       | Inhalation-Vapor (4 hours)     | Rat    | LC50 30 mg/l       |
| TOLUENE                                       | Ingestion                      | Rat    | LD50 5,550 mg/kg   |
| Xylene                                        | Dermal                         | Rabbit | LD50 > 4,200 mg/kg |
| Xylene                                        | Inhalation-Vapor (4 hours)     | Rat    | LC50 29 mg/l       |
| Xylene                                        | Ingestion                      | Rat    | LD50 3,523 mg/kg   |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name                   | Species                | Value                     |
|------------------------|------------------------|---------------------------|
| METHYL ETHYL KETONE    | Rabbit                 | Minimal irritation        |
| METHYL ACETATE         | Rabbit                 | No significant irritation |
| PROPANE                | Rabbit                 | Minimal irritation        |
| BUTANE                 | Professional judgement | No significant irritation |
| METHYL ISOBUTYL KETONE | Rabbit                 | Mild irritant             |
| N-BUTYL ACETATE        | Rabbit                 | Minimal irritation        |
| CALCIUM CARBONATE      | Rabbit                 | No significant irritation |
| IRON OXIDE (FE2O3)     | Rabbit                 | No significant irritation |
| TOLUENE                | Rabbit                 | Irritant                  |
| Xylene                 | Rabbit                 | Mild irritant             |

**Serious Eye Damage/Irritation**

| Name                   | Species | Value                     |
|------------------------|---------|---------------------------|
| METHYL ETHYL KETONE    | Rabbit  | Severe irritant           |
| METHYL ACETATE         | Rabbit  | Moderate irritant         |
| PROPANE                | Rabbit  | Mild irritant             |
| BUTANE                 | Rabbit  | No significant irritation |
| METHYL ISOBUTYL KETONE | Rabbit  | Mild irritant             |
| N-BUTYL ACETATE        | Rabbit  | Moderate irritant         |
| CALCIUM CARBONATE      | Rabbit  | No significant irritation |
| IRON OXIDE (FE2O3)     | Rabbit  | No significant irritation |
| TOLUENE                | Rabbit  | Moderate irritant         |
| Xylene                 | Rabbit  | Mild irritant             |

**Skin Sensitization**

| Name                   | Species                 | Value                                                                        |
|------------------------|-------------------------|------------------------------------------------------------------------------|
| METHYL ACETATE         | Human                   | Not sensitizing                                                              |
| METHYL ISOBUTYL KETONE | Guinea pig              | Not sensitizing                                                              |
| N-BUTYL ACETATE        | Multiple animal species | Not sensitizing                                                              |
| IRON OXIDE (FE2O3)     | Human                   | Some positive data exist, but the data are not sufficient for classification |
| TOLUENE                | Guinea pig              | Not sensitizing                                                              |

**Respiratory Sensitization**

| Name | Species | Value |
|------|---------|-------|
|------|---------|-------|

**Germ Cell Mutagenicity**

| Name                | Route    | Value         |
|---------------------|----------|---------------|
| METHYL ETHYL KETONE | In Vitro | Not mutagenic |
| METHYL ACETATE      | In Vitro | Not mutagenic |

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|                        |          |               |
|------------------------|----------|---------------|
| METHYL ACETATE         | In vivo  | Not mutagenic |
| PROPANE                | In Vitro | Not mutagenic |
| BUTANE                 | In Vitro | Not mutagenic |
| METHYL ISOBUTYL KETONE | In Vitro | Not mutagenic |
| N-BUTYL ACETATE        | In Vitro | Not mutagenic |
| IRON OXIDE (FE2O3)     | In Vitro | Not mutagenic |
| TOLUENE                | In Vitro | Not mutagenic |
| TOLUENE                | In vivo  | Not mutagenic |
| Xylene                 | In Vitro | Not mutagenic |
| Xylene                 | In vivo  | Not mutagenic |

**Carcinogenicity**

| Name                   | Route      | Species                 | Value                                                                        |
|------------------------|------------|-------------------------|------------------------------------------------------------------------------|
| METHYL ETHYL KETONE    | Inhalation | Human                   | Not carcinogenic                                                             |
| METHYL ISOBUTYL KETONE | Inhalation | Multiple animal species | Carcinogenic                                                                 |
| IRON OXIDE (FE2O3)     | Inhalation | Human                   | Some positive data exist, but the data are not sufficient for classification |
| TOLUENE                | Dermal     | Mouse                   | Some positive data exist, but the data are not sufficient for classification |
| TOLUENE                | Ingestion  | Rat                     | Some positive data exist, but the data are not sufficient for classification |
| TOLUENE                | Inhalation | Mouse                   | Some positive data exist, but the data are not sufficient for classification |
| Xylene                 | Dermal     | Rat                     | Not carcinogenic                                                             |
| Xylene                 | Ingestion  | Multiple animal species | Not carcinogenic                                                             |
| Xylene                 | Inhalation | Human                   | 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            |
|------------------------|------------|------------------------------------------------------------------------------------------------|-------------------------|-----------------------|------------------------------|
| METHYL ETHYL KETONE    | Inhalation | Not toxic to female reproduction                                                               | Rat                     | NOAEL 14.7 mg/l       | 90 days                      |
| METHYL ETHYL KETONE    | Inhalation | Not toxic to male reproduction                                                                 | Rat                     | NOAEL 14.7 mg/l       | 90 days                      |
| METHYL ETHYL KETONE    | Inhalation | Some positive developmental data exist, but the data are not sufficient for classification     | Rat                     | LOAEL 8.8 mg/l        | during gestation             |
| METHYL ISOBUTYL KETONE | Inhalation | Not toxic to female reproduction                                                               | Multiple animal species | NOAEL 8.2 mg/l        | 2 generation                 |
| METHYL ISOBUTYL KETONE | Ingestion  | Some positive male reproductive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 1,000 mg/kg/day | 13 weeks                     |
| METHYL ISOBUTYL KETONE | Inhalation | Some positive male reproductive data exist, but the data are not sufficient for classification | Multiple animal species | NOAEL 8.2 mg/l        | 2 generation                 |
| METHYL ISOBUTYL KETONE | Inhalation | Some positive developmental data exist, but the data are not sufficient for classification     | Mouse                   | NOAEL 12.3 mg/l       | during organogenesis         |
| N-BUTYL ACETATE        | Inhalation | Not toxic to female reproduction                                                               | Rat                     | NOAEL 7.1 mg/l        | premating & during gestation |
| N-BUTYL ACETATE        | Inhalation | Some positive developmental data exist, but the data are not sufficient for classification     | Rat                     | NOAEL 7.1 mg/l        | premating & during gestation |
| CALCIUM CARBONATE      | Ingestion  | Not toxic to development                                                                       | Rat                     | NOAEL 625 mg/kg/day   | premating & during gestation |
| TOLUENE                | Inhalation | Some positive female reproductive data exist, but the data are not sufficient for              | Human                   | NOAEL Not available   | occupational exposure        |

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|         |            |                                                                                                  |                         |                       |                        |
|---------|------------|--------------------------------------------------------------------------------------------------|-------------------------|-----------------------|------------------------|
|         |            | classification                                                                                   |                         |                       |                        |
| TOLUENE | Inhalation | Some positive male reproductive data exist, but the data are not sufficient for classification   | Rat                     | NOAEL 2.3 mg/l        | 1 generation           |
| TOLUENE | Ingestion  | Toxic to development                                                                             | Rat                     | LOAEL 520 mg/kg/day   | during gestation       |
| TOLUENE | Inhalation | Toxic to development                                                                             | Human                   | NOAEL Not available   | poisoning and/or abuse |
| Xylene  | Ingestion  | Not toxic to female reproduction                                                                 | Mouse                   | NOAEL 1,000 mg/kg/day | 103 weeks              |
| Xylene  | Ingestion  | Not toxic to male reproduction                                                                   | Mouse                   | NOAEL 1,000 mg/kg/day | 103 weeks              |
| Xylene  | Inhalation | Some positive female reproductive data exist, but the data are not sufficient for classification | Human                   | NOAEL Not available   | occupational exposure  |
| Xylene  | Ingestion  | Some positive developmental data exist, but the data are not sufficient for classification       | Mouse                   | NOAEL Not available   | during organogenesis   |
| Xylene  | Inhalation | Some positive developmental data exist, but the data are not sufficient for classification       | Multiple animal species | NOAEL Not available   | during gestation       |

**Lactation**

| Name   | Route     | Species | Value                                      |
|--------|-----------|---------|--------------------------------------------|
| Xylene | Ingestion | Mouse   | Does not cause effects on or via lactation |

**Target Organ(s)**
**Specific Target Organ Toxicity - single exposure**

| Name                | Route      | Target Organ(s)                   | Value                                                                        | Species                 | Test Result         | Exposure Duration |
|---------------------|------------|-----------------------------------|------------------------------------------------------------------------------|-------------------------|---------------------|-------------------|
| METHYL ETHYL KETONE | Inhalation | central nervous system depression | May cause drowsiness or dizziness                                            | official classification | NOAEL Not available |                   |
| METHYL ETHYL KETONE | Inhalation | respiratory irritation            | Some positive data exist, but the data are not sufficient for classification | Human                   | NOAEL Not available |                   |
| METHYL ETHYL KETONE | Ingestion  | liver                             | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL Not available | not applicable    |
| METHYL ETHYL KETONE | Ingestion  | kidney and/or bladder             | Some positive data exist, but the data are not sufficient for classification | Rat                     | LOAEL 1,080 mg/kg   | not applicable    |
| METHYL ACETATE      | Inhalation | central nervous system depression | May cause drowsiness or dizziness                                            | Human and animal        | NOAEL Not available |                   |
| METHYL ACETATE      | Inhalation | respiratory irritation            | May cause respiratory irritation                                             | Human and animal        | NOAEL Not available |                   |
| METHYL ACETATE      | Inhalation | blindness                         | Some positive data exist, but the data are not sufficient for classification |                         | NOAEL Not available |                   |
| METHYL ACETATE      | Ingestion  | central nervous system depression | May cause drowsiness or dizziness                                            |                         | NOAEL Not available |                   |
| PROPANE             | Inhalation | cardiac sensitization             | Causes damage to organs                                                      | Human                   | NOAEL Not available |                   |
| PROPANE             | Inhalation | central nervous system depression | May cause drowsiness or dizziness                                            | Human                   | NOAEL Not available |                   |
| PROPANE             | Inhalation | respiratory irritation            | All data are negative                                                        | Human                   | NOAEL Not available |                   |
| BUTANE              | Inhalation | cardiac sensitization             | Causes damage to organs                                                      | Human                   | NOAEL Not available |                   |
| BUTANE              | Inhalation | central nervous system depression | May cause drowsiness or dizziness                                            | Human and               | NOAEL Not available |                   |

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|                        |            |                                   |                                                                              |                         |                     |                        |
|------------------------|------------|-----------------------------------|------------------------------------------------------------------------------|-------------------------|---------------------|------------------------|
| BUTANE                 | Inhalation | heart                             | Some positive data exist, but the data are not sufficient for classification | animal<br>Dog           | NOAEL<br>5,000 ppm  | 25 minutes             |
| BUTANE                 | Inhalation | respiratory irritation            | All data are negative                                                        | Rabbit                  | NOAEL Not available |                        |
| METHYL ISOBUTYL KETONE | Inhalation | central nervous system depression | May cause drowsiness or dizziness                                            | Human                   | LOAEL 0.10 mg/l     | 2 hours                |
| METHYL ISOBUTYL KETONE | Inhalation | respiratory irritation            | May cause respiratory irritation                                             | Human                   | NOAEL 0.9 mg/l      | 7 minutes              |
| METHYL ISOBUTYL KETONE | Inhalation | vascular system                   | Some positive data exist, but the data are not sufficient for classification | Dog                     | NOAEL Not available | not available          |
| METHYL ISOBUTYL KETONE | Ingestion  | central nervous system depression | May cause drowsiness or dizziness                                            | Rat                     | LOAEL 900 mg/kg     | not applicable         |
| N-BUTYL ACETATE        | Inhalation | respiratory system                | May cause damage to organs                                                   | Rat                     | LOAEL 2.6 mg/l      | 4 hours                |
| N-BUTYL ACETATE        | Inhalation | central nervous system depression | May cause drowsiness or dizziness                                            | Human                   | NOAEL Not available | not available          |
| N-BUTYL ACETATE        | Inhalation | respiratory irritation            | May cause respiratory irritation                                             | Human                   | NOAEL Not available | not available          |
| CALCIUM CARBONATE      | Inhalation | respiratory system                | All data are negative                                                        | Rat                     | NOAEL<br>0.812 mg/l | 90 minutes             |
| TOLUENE                | Inhalation | central nervous system depression | May cause drowsiness or dizziness                                            | Human                   | NOAEL Not available |                        |
| TOLUENE                | Inhalation | respiratory irritation            | Some positive data exist, but the data are not sufficient for classification | Human                   | NOAEL Not available |                        |
| TOLUENE                | Inhalation | immune system                     | Some positive data exist, but the data are not sufficient for classification | Mouse                   | NOAEL<br>0.004 mg/l | 3 hours                |
| TOLUENE                | Ingestion  | central nervous system depression | May cause drowsiness or dizziness                                            | Human                   | NOAEL Not available | poisoning and/or abuse |
| Xylene                 | Inhalation | auditory system                   | Causes damage to organs                                                      | Rat                     | LOAEL 6.3 mg/l      | 8 hours                |
| Xylene                 | Inhalation | central nervous system depression | May cause drowsiness or dizziness                                            | Human                   | NOAEL Not available |                        |
| Xylene                 | Inhalation | respiratory irritation            | Some positive data exist, but the data are not sufficient for classification | Human                   | NOAEL Not available |                        |
| Xylene                 | Inhalation | eyes                              | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 3.5 mg/l      | not available          |
| Xylene                 | Inhalation | liver                             | Some positive data exist, but the data are not sufficient for classification | Multiple animal species | NOAEL Not available |                        |
| Xylene                 | Ingestion  | central nervous system depression | May cause drowsiness or dizziness                                            | Multiple animal species | NOAEL Not available |                        |
| Xylene                 | Ingestion  | eyes                              | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 250 mg/kg     | not applicable         |

**Specific Target Organ Toxicity - repeated exposure**

| Name                | Route      | Target Organ(s)                                                                                             | Value                                                                        | Species    | Test Result         | Exposure Duration |
|---------------------|------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------|---------------------|-------------------|
| METHYL ETHYL KETONE | Dermal     | nervous system                                                                                              | All data are negative                                                        | Guinea pig | NOAEL Not available | 31 weeks          |
| METHYL ETHYL KETONE | Inhalation | liver   kidney and/or bladder                                                                               | Some positive data exist, but the data are not sufficient for classification | Rat        | NOAEL 14.7 mg/l     | 90 days           |
| METHYL ETHYL KETONE | Inhalation | heart   endocrine system   bone, teeth, nails, and/or hair   hematopoietic system   immune system   muscles | All data are negative                                                        | Rat        | NOAEL 14.7 mg/l     | 90 days           |
| METHYL ETHYL        | Ingestion  | liver                                                                                                       | Some positive data exist, but the                                            | Rat        | NOAEL Not           | 7 days            |

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|                                              |            |                                                                                         |                                                                              |                         |                       |                        |
|----------------------------------------------|------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------|-----------------------|------------------------|
| KETONE                                       |            |                                                                                         | data are not sufficient for classification                                   |                         | available             |                        |
| METHYL ETHYL KETONE                          | Ingestion  | nervous system                                                                          | All data are negative                                                        | Rat                     | NOAEL 173 mg/kg/day   | 90 days                |
| METHYL ACETATE                               | Inhalation | respiratory system                                                                      | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 1.1 mg/l        | 28 days                |
| METHYL ACETATE                               | Inhalation | endocrine system   hematopoietic system   liver   immune system   kidney and/or bladder | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 6.1 mg/l        | 28 days                |
| BUTANE                                       | Inhalation | kidney and/or bladder                                                                   | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 4,489 ppm       | 90 days                |
| BUTANE                                       | Inhalation | blood                                                                                   | All data are negative                                                        | Rat                     | NOAEL 4,489 ppm       | 90 days                |
| METHYL ISOBUTYL KETONE                       | Inhalation | liver                                                                                   | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 0.41 mg/l       | 13 weeks               |
| METHYL ISOBUTYL KETONE                       | Inhalation | heart                                                                                   | Some positive data exist, but the data are not sufficient for classification | Multiple animal species | NOAEL 0.8 mg/l        | 2 weeks                |
| METHYL ISOBUTYL KETONE                       | Inhalation | kidney and/or bladder                                                                   | Some positive data exist, but the data are not sufficient for classification | Multiple animal species | NOAEL 0.4 mg/l        | 90 days                |
| METHYL ISOBUTYL KETONE                       | Inhalation | respiratory system                                                                      | All data are negative                                                        | Multiple animal species | NOAEL 4.1 mg/l        | 14 weeks               |
| METHYL ISOBUTYL KETONE                       | Inhalation | endocrine system   hematopoietic system                                                 | All data are negative                                                        | Multiple animal species | NOAEL 0.41 mg/l       | 90 days                |
| METHYL ISOBUTYL KETONE                       | Inhalation | nervous system                                                                          | All data are negative                                                        | Multiple animal species | NOAEL 0.41 mg/l       | 13 weeks               |
| METHYL ISOBUTYL KETONE                       | Ingestion  | endocrine system   hematopoietic system   liver   kidney and/or bladder                 | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 1,000 mg/kg/day | 13 weeks               |
| METHYL ISOBUTYL KETONE                       | Ingestion  | heart   immune system   muscles   nervous system   respiratory system                   | All data are negative                                                        | Rat                     | NOAEL 1,040 mg/kg/day | 120 days               |
| N-BUTYL ACETATE                              | Inhalation | olfactory system                                                                        | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 2.4 mg/l        | 14 weeks               |
| N-BUTYL ACETATE                              | Inhalation | liver   kidney and/or bladder                                                           | Some positive data exist, but the data are not sufficient for classification | Rabbit                  | NOAEL 7.26 mg/l       | 13 days                |
| CALCIUM CARBONATE                            | Inhalation | respiratory system                                                                      | Some positive data exist, but the data are not sufficient for classification | Human                   | NOAEL Not available   | occupational exposure  |
| IRON OXIDE (FE <sub>2</sub> O <sub>3</sub> ) | Inhalation | pulmonary fibrosis   pneumoconiosis                                                     | Some positive data exist, but the data are not sufficient for classification | Human                   | NOAEL Not available   | occupational exposure  |
| TOLUENE                                      | Inhalation | auditory system   nervous system   eyes   olfactory system                              | Causes damage to organs through prolonged or repeated exposure               | Human                   | NOAEL Not available   | poisoning and/or abuse |
| TOLUENE                                      | Inhalation | respiratory system                                                                      | Some positive data exist, but the data are not sufficient for classification | Rat                     | LOAEL 2.3 mg/l        | 15 months              |
| TOLUENE                                      | Inhalation | heart   liver   kidney and/or bladder                                                   | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 11.3 mg/l       | 15 weeks               |
| TOLUENE                                      | Inhalation | endocrine system                                                                        | Some positive data exist, but the data are not sufficient for                | Rat                     | NOAEL 1.1 mg/l        | 4 weeks                |

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|         |            |                                                                                                                                                | classification                                                               |                         |                       |                       |
|---------|------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------|-----------------------|-----------------------|
| TOLUENE | Inhalation | immune system                                                                                                                                  | Some positive data exist, but the data are not sufficient for classification | Mouse                   | NOAEL Not available   | 20 days               |
| TOLUENE | Inhalation | bone, teeth, nails, and/or hair                                                                                                                | Some positive data exist, but the data are not sufficient for classification | Mouse                   | NOAEL 1.1 mg/l        | 8 weeks               |
| TOLUENE | Inhalation | hematopoietic system   vascular system                                                                                                         | Some positive data exist, but the data are not sufficient for classification | Human                   | NOAEL Not available   | occupational exposure |
| TOLUENE | Ingestion  | nervous system                                                                                                                                 | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 625 mg/kg/day   | 13 weeks              |
| TOLUENE | Ingestion  | heart                                                                                                                                          | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 2,500 mg/kg/day | 13 weeks              |
| TOLUENE | Ingestion  | liver   kidney and/or bladder                                                                                                                  | Some positive data exist, but the data are not sufficient for classification | Multiple animal species | NOAEL 2,500 mg/kg/day | 13 weeks              |
| TOLUENE | Ingestion  | hematopoietic system                                                                                                                           | Some positive data exist, but the data are not sufficient for classification | Mouse                   | NOAEL 600 mg/kg/day   | 14 days               |
| TOLUENE | Ingestion  | endocrine system                                                                                                                               | Some positive data exist, but the data are not sufficient for classification | Mouse                   | NOAEL 105 mg/kg/day   | 28 days               |
| TOLUENE | Ingestion  | immune system                                                                                                                                  | Some positive data exist, but the data are not sufficient for classification | Mouse                   | NOAEL 105 mg/kg/day   | 4 weeks               |
| Xylene  | Inhalation | nervous system                                                                                                                                 | Causes damage to organs through prolonged or repeated exposure               | Rat                     | LOAEL 0.4 mg/l        | 4 weeks               |
| Xylene  | Inhalation | auditory system                                                                                                                                | May cause damage to organs though prolonged or repeated exposure             | Rat                     | LOAEL 7.8 mg/l        | 5 days                |
| Xylene  | Inhalation | liver                                                                                                                                          | Some positive data exist, but the data are not sufficient for classification | Multiple animal species | NOAEL Not available   |                       |
| Xylene  | Inhalation | heart   endocrine system   hematopoietic system   muscles   kidney and/or bladder   respiratory system                                         | All data are negative                                                        | Multiple animal species | NOAEL 3.5 mg/l        | 13 weeks              |
| Xylene  | Ingestion  | auditory system                                                                                                                                | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 900 mg/kg/day   | 2 weeks               |
| Xylene  | Ingestion  | kidney and/or bladder                                                                                                                          | Some positive data exist, but the data are not sufficient for classification | Rat                     | NOAEL 1,500 mg/kg/day | 90 days               |
| Xylene  | Ingestion  | liver                                                                                                                                          | Some positive data exist, but the data are not sufficient for classification | Multiple animal species | NOAEL Not available   |                       |
| Xylene  | Ingestion  | heart   skin   endocrine system   bone, teeth, nails, and/or hair   hematopoietic system   immune system   nervous system   respiratory system | All data are negative                                                        | Mouse                   | NOAEL 1,000 mg/kg/day | 103 weeks             |

**Aspiration Hazard**

| Name                   | Value                                                                        |
|------------------------|------------------------------------------------------------------------------|
| METHYL ISOBUTYL KETONE | Some positive data exist, but the data are not sufficient for classification |
| TOLUENE                | Aspiration hazard                                                            |
| Xylene                 | Aspiration hazard                                                            |

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 labeling, 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:

Not acutely toxic to aquatic life by GHS criteria.

#### Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available

| Material                        | Cas #      | Organism    | Type                                                  | Exposure | Test Endpoint            | Test Result |
|---------------------------------|------------|-------------|-------------------------------------------------------|----------|--------------------------|-------------|
| BISPHENOL A-FORMALDEHYDE RESIN  | 25085-75-0 |             | Data not available or insufficient for classification |          |                          |             |
| 2,2,4-TRIMETHYLOL DIISOBUTYRATE | 6846-50-0  | Green Algae | Experimental                                          | 72 hours | Effect Concentration 50% | 8 mg/l      |
| 2,2,4-TRIMETHYLOL DIISOBUTYRATE | 6846-50-0  | Ricefish    | Experimental                                          | 96 hours | Lethal Concentration 50% | 18 mg/l     |
| 2,2,4-TRIMETHYLOL DIISOBUTYRATE | 6846-50-0  | Green algae | Experimental                                          | 72 hours | No obs Effect Conc       | 5.3 mg/l    |
| 2,2,4-TRIMETHYLOL DIISOBUTYRATE | 6846-50-0  | Water flea  | Experimental                                          | 21 days  | No obs Effect Conc       | 3.2 mg/l    |

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|                        |           |                      |                                                       |          |                          |              |
|------------------------|-----------|----------------------|-------------------------------------------------------|----------|--------------------------|--------------|
| PROPANE                | 74-98-6   |                      | Data not available or insufficient for classification |          |                          |              |
| TOLUENE                | 108-88-3  | Water flea           | Experimental                                          | 48 hours | Effect Concentration 50% | 3.78 mg/l    |
| TOLUENE                | 108-88-3  | Green Algae          | Experimental                                          | 72 hours | Effect Concentration 50% | 12.5 mg/l    |
| TOLUENE                | 108-88-3  | Coho Salmon          | Experimental                                          | 96 hours | Lethal Concentration 50% | 5.5 mg/l     |
| TOLUENE                | 108-88-3  | Sheepshead Minnow    | Experimental                                          | 28 days  | No obs Effect Conc       | 3.2 mg/l     |
| IRON OXIDE (FE2O3)     | 1309-37-1 | Fish other           | Laboratory                                            | 48 hours | Lethal Concentration 50% | >1,000 mg/l  |
| CALCIUM CARBONATE      | 471-34-1  | Western Mosquitofish | Experimental                                          | 96 hours | Lethal Concentration 50% | >100 mg/l    |
| CALCIUM CARBONATE      | 471-34-1  | Rainbow Trout        | Experimental                                          | 21 days  | No obs Effect Conc       | >100 mg/l    |
| METHYL ACETATE         | 79-20-9   | Fathead Minnow       | Experimental                                          | 96 hours | Lethal Concentration 50% | 320 mg/l     |
| METHYL ACETATE         | 79-20-9   | Water flea           | Experimental                                          | 48 hours | Effect Concentration 50% | 1,026.7 mg/l |
| METHYL ETHYL KETONE    | 78-93-3   | Ricefish             | Experimental                                          | 96 hours | Lethal Concentration 50% | >100 mg/l    |
| METHYL ETHYL KETONE    | 78-93-3   | Green algae          | Experimental                                          | 72 hours | No obs Effect Conc       | 93 mg/l      |
| METHYL ETHYL KETONE    | 78-93-3   | Water flea           | Experimental                                          | 21 days  | No obs Effect Conc       | 100 mg/l     |
| N-BUTYL ACETATE        | 123-86-4  | Green algae          | Experimental                                          | 72 hours | Effect Concentration 50% | 674.7 mg/l   |
| N-BUTYL ACETATE        | 123-86-4  | Crustacea            | Experimental                                          | 48 hours | Lethal Concentration 50% | 32 mg/l      |
| N-BUTYL ACETATE        | 123-86-4  | Fathead Minnow       | Experimental                                          | 96 hours | Lethal Concentration 50% | 18 mg/l      |
| Xylene                 | 1330-20-7 |                      | Data not available or insufficient for classification |          |                          |              |
| METHYL ISOBUTYL KETONE | 108-10-1  | Water flea           | Experimental                                          | 48 hours | Effect Concentration 50% | 170 mg/l     |
| METHYL                 | 108-10-1  | Goldfish             | Experimental                                          | 24 hours | Lethal                   | 460 mg/l     |

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|                        |          |                |                                                       |          |                          |          |
|------------------------|----------|----------------|-------------------------------------------------------|----------|--------------------------|----------|
| ISOBUTYL KETONE        |          |                |                                                       |          | Concentration 50%        |          |
| METHYL ISOBUTYL KETONE | 108-10-1 | Green Algae    | Experimental                                          | 96 hours | Effect Concentration 50% | 400 mg/l |
| METHYL ISOBUTYL KETONE | 108-10-1 | Fathead Minnow | Experimental                                          | 32 days  | No obs Effect Conc       | 57 mg/l  |
| METHYL ISOBUTYL KETONE | 108-10-1 | Water flea     | Experimental                                          | 21 days  | No obs Effect Conc       | 7.8 mg/l |
| BUTANE                 | 106-97-8 |                | Data not available or insufficient for classification |          |                          |          |

**12.2. Persistence and degradability**

| Material                                      | CAS No.    | Test Type                                             | Duration | Study Type                    | Test Result                   | Protocol                       |
|-----------------------------------------------|------------|-------------------------------------------------------|----------|-------------------------------|-------------------------------|--------------------------------|
| BISPHENOL A-FORMALDEHYDE RESIN                | 25085-75-0 | Data not available or insufficient for classification | N/A      | N/A                           | N/A                           | N/A                            |
| 2,2,4-TRIMETHYL-1,3-PENTANEDIOL DIISOBUTYRATE | 6846-50-0  | Experimental Biodegradation                           | 28 days  | Biological Oxygen Demand      | 82 % weight                   | OECD 301C - MITI (I)           |
| PROPANE                                       | 74-98-6    | Experimental Photolysis                               |          | Photolytic half-life (in air) | 27.5 days (t <sub>1/2</sub> ) | Other methods                  |
| TOLUENE                                       | 108-88-3   | Experimental Photolysis                               |          | Photolytic half-life (in air) | 5.38 days (t <sub>1/2</sub> ) | Other methods                  |
| TOLUENE                                       | 108-88-3   | Experimental Biodegradation                           | 14 days  | Biological Oxygen Demand      | 100 % weight                  | OECD 301C - MITI (I)           |
| IRON OXIDE (FE <sub>2</sub> O <sub>3</sub> )  | 1309-37-1  | Data not available or insufficient for classification | N/A      | N/A                           | N/A                           | N/A                            |
| CALCIUM CARBONATE                             | 471-34-1   | Data not available or insufficient for classification | N/A      | N/A                           | N/A                           | N/A                            |
| METHYL ACETATE                                | 79-20-9    | Experimental Photolysis                               |          | Photolytic half-life (in air) | 1.8 hours (t <sub>1/2</sub> ) | Other methods                  |
| METHYL ACETATE                                | 79-20-9    | Experimental Biodegradation                           | 14 days  | Biological Oxygen Demand      | 74 % weight                   | OECD 301D - Closed Bottle Test |
| METHYL ETHYL KETONE                           | 78-93-3    | Experimental Biodegradation                           | 20 days  | Biological Oxygen Demand      | 89 % weight                   | Other methods                  |
| N-BUTYL ACETATE                               | 123-86-4   | Experimental Biodegradation                           | 28 days  | Biological Oxygen             | 98 % weight                   | OECD 301D - Closed Bottle Test |

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|                        |           |                                                       |         | Demand                        |                   |                      |
|------------------------|-----------|-------------------------------------------------------|---------|-------------------------------|-------------------|----------------------|
| Xylene                 | 1330-20-7 | Data not available or insufficient for classification | N/A     | N/A                           | N/A               | N/A                  |
| METHYL ISOBUTYL KETONE | 108-10-1  | Experimental Photolysis                               |         | Photolytic half-life (in air) | 2.28 days (t 1/2) | Other methods        |
| METHYL ISOBUTYL KETONE | 108-10-1  | Experimental Biodegradation                           | 14 days | Biological Oxygen Demand      | 84 % weight       | OECD 301C - MITI (I) |
| BUTANE                 | 106-97-8  | Experimental Photolysis                               |         | Photolytic half-life (in air) | 12.3 days (t 1/2) | Other methods        |

**12.3. Bioaccumulative potential**

| Material                                      | CAS No.    | Test Type                                             | Duration | Study Type                                  | Test Result | Protocol                       |
|-----------------------------------------------|------------|-------------------------------------------------------|----------|---------------------------------------------|-------------|--------------------------------|
| BISPHENOL A-FORMALDEHYDE RESIN                | 25085-75-0 | Data not available or insufficient for classification | N/A      | N/A                                         | N/A         | N/A                            |
| 2,2,4-TRIMETHYL-1,3-PENTANEDIOL DIISOBUTYRATE | 6846-50-0  | Experimental BCF-Carp                                 | 42 days  | Bioaccumulation Factor                      | <=31 mg/l   | OECD 305C-Bioaccum degree fish |
| PROPANE                                       | 74-98-6    | Data not available or insufficient for classification | N/A      | N/A                                         | N/A         | N/A                            |
| TOLUENE                                       | 108-88-3   | Experimental Bioconcentration                         |          | Log of Octanol/H <sub>2</sub> O part. coeff | 2.73        | Other methods                  |
| IRON OXIDE (FE <sub>2</sub> O <sub>3</sub> )  | 1309-37-1  | Data not available or insufficient for classification | N/A      | N/A                                         | N/A         | N/A                            |
| CALCIUM CARBONATE                             | 471-34-1   | Data not available or insufficient for classification | N/A      | N/A                                         | N/A         | N/A                            |
| METHYL ACETATE                                | 79-20-9    | Experimental Bioconcentration                         |          | Log of Octanol/H <sub>2</sub> O part. coeff | 0.18        | Other methods                  |
| METHYL ETHYL KETONE                           | 78-93-3    | Experimental Bioconcentration                         |          | Log of Octanol/H <sub>2</sub> O part. coeff | 0.29        | Other methods                  |
| N-BUTYL ACETATE                               | 123-86-4   | Experimental Bioconcentration                         |          | Log of Octanol/H <sub>2</sub> O part. coeff | 1.78        | Other methods                  |
| Xylene                                        | 1330-20-7  | Data not available or insufficient for                | N/A      | N/A                                         | N/A         | N/A                            |

**3M(TM) Electrical Insulating Sealer 1602-R, Red**

|                              |          | classification                       |  |                                      |      |               |
|------------------------------|----------|--------------------------------------|--|--------------------------------------|------|---------------|
| METHYL<br>ISOBUTYL<br>KETONE | 108-10-1 | Experimental<br>Bioconcentrati<br>on |  | Log of<br>Octanol/H2O<br>part. coeff | 1.31 | Other methods |
| BUTANE                       | 106-97-8 | Experimental<br>Bioconcentrati<br>on |  | Log of<br>Octanol/H2O<br>part. coeff | 2.89 | Other methods |

**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**

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility. Dispose of waste product in a permitted industrial waste facility. Facility must be capable of handling aerosol cans. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

**SECTION 14: Transport Information****Local Regulations**

**Land Transport:** In accordance with Director General of Land Transportation Decree No. SK.725/AJ.302/DRJD/2004 which refer to UN Standard.

**Sea Transport:** In accordance with Minister of Transportation Decree No. KM 2/2010 which refer to IMDG Code Standard.

**International Regulations**

**UN No.:** UN 1950

**UN Proper Shipping Name:** AEROSOLS, CORROSIVE

**Transportation Class (IMO):** 2.1

**Transportation Class (IATA):** 2.1

**Packing Group:** Not applicable

**Marine Pollutant:** No

**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.

**Local Inventory Status**

**Addendum I Government Regulation No. 74/2001:**

**List of Hazardous Substances Approved for Use :**

BUTANE is listed as a Hazardous Substance Approved for Use.

METHYL ETHYL KETONE is listed as a Hazardous Substance Approved for Use.

### 3M(TM) Electrical Insulating Sealer 1602-R, Red

METHYL ISOBUTYL KETONE is listed as a Hazardous Substance Approved for Use.  
PROPANE is listed as a Hazardous Substance Approved for Use.  
TOLUENE is listed as a Hazardous Substance Approved for Use.

#### **Addendum II Government Regulation No. 74/2001:**

##### **Tab.1 List of Prohibited Substances for Use:**

None of the substances are listed as a Prohibited Substance for Use.

#### **Addendum II Government Regulation No. 74/2001:**

##### **Tab.2 List of Restricted Substances for Use:**

None of the substances are listed as a Restricted Substance for Use.

#### **Addendum I Ministry of Health Regulation No. 472/1996:**

##### **List and Classification of Hazardous Substances for Health:**

METHYL ACETATE is listed and classified as a Hazardous Substance for Health.

#### **Addendum I Act of Minister of Industry and Trade No. 254/MPP/KEP/2000**

##### **List of Hazardous Substances that are Regulated to Import Trade System:**

None of the substances are listed and classified as a Hazardous Substance that is Regulated to Import Trade System.

## SECTION 16: Other information

|                        |            |                         |               |
|------------------------|------------|-------------------------|---------------|
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**3M Indonesia SDSs are available at [www.mmm.com](http://www.mmm.com)**