



Safety Data Sheet

Copyright, 2018, 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: | 10-2457-9 | Version Number: | 17.01 |
| Issue Date: | 10/01/18 | Supersedes Date: | 05/21/18 |

SECTION 1: Identification

1.1. Product identifier

3M™ Scotch-Weld™ Structural Adhesive EC-1458

Product Identification Numbers

62-1458-6501-0, 62-1458-7501-9, 62-1458-8501-8, 62-1458-9501-7
7000046327, 7010309722

1.2. Recommended use and restrictions on use

Recommended use

Adhesive

1.3. Supplier's details

| | |
|----------------------|---|
| MANUFACTURER: | 3M |
| DIVISION: | Automotive and Aerospace Solutions Division |
| ADDRESS: | 3M Center, St. Paul, MN 55144-1000, USA |
| Telephone: | 1-888-3M HELPS (1-888-364-3577) |

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification

Flammable Liquid: Category 2.
Serious Eye Damage/Irritation: Category 1.
Skin Corrosion/Irritation: Category 1C.
Specific Target Organ Toxicity (single exposure): Category 1.
Specific Target Organ Toxicity (single exposure): Category 3.
Specific Target Organ Toxicity (repeated exposure): Category 1.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Corrosion | Exclamation mark | Health Hazard |

Pictograms



Hazard Statements

Highly flammable liquid and vapor.

Causes severe skin burns and eye damage.

May cause drowsiness or dizziness.

Causes damage to organs:

blood or blood-forming organs |

cardiovascular system |

nervous system |

kidney/urinary tract |

respiratory system |

Causes damage to organs through prolonged or repeated exposure:

blood or blood-forming organs |

cardiovascular system |

liver |

kidney/urinary tract |

respiratory system |

May cause damage to organs through prolonged or repeated exposure:

nervous system |

Precautionary Statements

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Ground/bond container and receiving equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Keep container tightly closed.

Use explosion-proof electrical/ventilating/lighting equipment.

Do not breathe dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves, protective clothing, and eye/face protection.

Do not eat, drink or smoke when using this product.

Wash thoroughly after handling.

Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Immediately call a POISON CENTER or doctor/physician.

Wash contaminated clothing before reuse.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Get medical advice/attention if you feel unwell.

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

Storage:

Store in a well-ventilated place. Keep container tightly closed.

Keep cool.

Store locked up.

Disposal:

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

2.3. Hazards not otherwise classified

May cause chemical gastrointestinal burns.

SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|---------------------------------|------------|------------------------|
| ETHYL ACETATE | 141-78-6 | 50 - 60 Trade Secret * |
| PHENOLIC RESIN | 9039-25-2 | 10 - 30 |
| ACRYLONITRILE-BUTADIENE POLYMER | 9003-18-3 | 10 - 20 |
| METHYL ETHYL KETONE | 78-93-3 | 5 - 10 Trade Secret * |
| PHENOL | 108-95-2 | 1 - 5 Trade Secret * |

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

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 flush with large amounts of water for at least 15 minutes. Remove contaminated clothing. Get immediate medical attention. Wash clothing before reuse.

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. Do not induce vomiting. Get immediate 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

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

| <u>Substance</u> | <u>Condition</u> |
|------------------|-------------------|
| Hydrocarbons | During Combustion |
| Carbon monoxide | During Combustion |
| 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. 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. 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

Contain spill. Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) 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 in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

For industrial or professional use only. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. 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. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. 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 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 |
|---------------------|------------|--------|--------------------------|--------------------------------------|
| PHENOL | 108-95-2 | ACGIH | TWA:5 ppm | SKIN, A4: Not class. as human carcin |
| PHENOL | 108-95-2 | OSHA | TWA:19 mg/m3(5 ppm) | SKIN |
| ETHYL ACETATE | 141-78-6 | ACGIH | TWA:400 ppm | |
| ETHYL ACETATE | 141-78-6 | OSHA | TWA:1400 mg/m3(400 ppm) | |
| METHYL ETHYL KETONE | 78-93-3 | ACGIH | TWA:200 ppm;STEL:300 ppm | |
| METHYL ETHYL KETONE | 78-93-3 | OSHA | TWA:590 mg/m3(200 ppm) | |

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

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. 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: Butyl Rubber

Fluoroelastomer

Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron – Butyl rubber

Apron - 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 and particulates

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

| | |
|--|---|
| General Physical Form: | Liquid |
| Odor, Color, Grade: | transparent amber, solvent odor |
| Odor threshold | <i>No Data Available</i> |
| pH | <i>Not Applicable</i> |
| Melting point | <i>No Data Available</i> |
| Boiling Point | 171 °F [<i>Details:CONDITIONS: (ethyl acetate)</i>] |
| Flash Point | 25 °F [<i>Test Method:Closed Cup</i>] |
| Evaporation rate | 2.7 [<i>Ref Std:ETHER=1</i>] |
| Flammability (solid, gas) | Not Applicable |
| Flammable Limits(LEL) | 1.8 % volume |
| Flammable Limits(UEL) | 11.5 % volume |
| Vapor Pressure | 72.4 mmHg [<i>@ 68 °F</i>] |
| Vapor Density | 3 [<i>Ref Std:AIR=1</i>] |
| Density | 0.93 g/ml |
| Specific Gravity | 0.93 [<i>Ref Std:WATER=1</i>] |
| Solubility in Water | Nil |
| Solubility- non-water | <i>No Data Available</i> |
| Partition coefficient: n-octanol/ water | <i>No Data Available</i> |
| Autoignition temperature | <i>No Data Available</i> |
| Decomposition temperature | <i>No Data Available</i> |
| Viscosity | Approximately 3,200 centipoise [<i>@ 73.4 °F</i>] |
| Molecular weight | <i>Not Applicable</i> |
| Volatile Organic Compounds | <=663 g/l [<i>Test Method:calculated SCAQMD rule 443.1</i>] |
| Percent volatile | 71 % weight |
| VOC Less H2O & Exempt Solvents | <=663 g/l [<i>Test Method:calculated SCAQMD rule 443.1</i>] |

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

Not determined

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

| <u>Substance</u> | <u>Condition</u> |
|------------------|------------------|
| 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 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:

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:

Corrosive (Skin Burns): Signs/symptoms may include localized redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction.

May cause additional health effects (see below).

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 Corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain; nausea; vomiting; and diarrhea; blood in the feces and/or vomitus may also be seen.

May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Cardiac Effects: Signs/symptoms may include irregular heartbeat (arrhythmia), changes in heart rate, damage to heart muscle, heart attack, and may be fatal.

Hematopoietic Effects: Signs/symptoms may include generalized weakness, fatigue and alterations in numbers of circulating blood cells.

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

Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.

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.

Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

Prolonged or repeated exposure may cause target organ effects:

Cardiac Effects: Signs/symptoms may include irregular heartbeat (arrhythmia), changes in heart rate, damage to heart muscle, heart attack, and may be fatal.

Hematopoietic Effects: Signs/symptoms may include generalized weakness, fatigue and alterations in numbers of circulating blood cells.

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.

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.

Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

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 >50 mg/l |
| Overall product | Ingestion | | No data available; calculated ATE >5,000 mg/kg |
| ETHYL ACETATE | Dermal | Rabbit | LD50 > 18,000 mg/kg |
| ETHYL ACETATE | Inhalation-Vapor (4 hours) | Rat | LC50 70.5 mg/l |
| ETHYL ACETATE | Ingestion | Rat | LD50 5,620 mg/kg |
| PHENOLIC RESIN | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| PHENOLIC RESIN | Inhalation-Dust/Mist | | LC50 estimated to be > 12.5 mg/l |
| PHENOLIC RESIN | Ingestion | | LD50 estimated to be > 5,000 mg/kg |
| ACRYLONITRILE-BUTADIENE POLYMER | Dermal | Rabbit | LD50 > 15,000 mg/kg |
| ACRYLONITRILE-BUTADIENE POLYMER | Ingestion | Rat | LD50 > 30,000 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 |

| | | | |
|--------|------------------|-----|----------------------------------|
| PHENOL | Inhalation-Vapor | | LC50 estimated to be 2 - 10 mg/l |
| PHENOL | Dermal | Rat | LD50 670 mg/kg |
| PHENOL | Ingestion | Rat | LD50 340 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|---------------------------------|------------------------|---------------------------|
| ETHYL ACETATE | Rabbit | Minimal irritation |
| PHENOLIC RESIN | Professional judgement | No significant irritation |
| ACRYLONITRILE-BUTADIENE POLYMER | Professional judgement | No significant irritation |
| METHYL ETHYL KETONE | Rabbit | Minimal irritation |
| PHENOL | Rat | Corrosive |

Serious Eye Damage/Irritation

| Name | Species | Value |
|---------------------------------|------------------------|---------------------------|
| ETHYL ACETATE | Rabbit | Mild irritant |
| PHENOLIC RESIN | Professional judgement | Mild irritant |
| ACRYLONITRILE-BUTADIENE POLYMER | Professional judgement | No significant irritation |
| METHYL ETHYL KETONE | Rabbit | Severe irritant |
| PHENOL | Rabbit | Corrosive |

Skin Sensitization

| Name | Species | Value |
|---------------|------------|----------------|
| ETHYL ACETATE | Guinea pig | Not classified |
| PHENOL | Guinea pig | Not classified |

Respiratory Sensitization

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

Germ Cell Mutagenicity

| Name | Route | Value |
|---------------------|----------|--|
| ETHYL ACETATE | In Vitro | Not mutagenic |
| ETHYL ACETATE | In vivo | Not mutagenic |
| METHYL ETHYL KETONE | In Vitro | Not mutagenic |
| PHENOL | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| PHENOL | In vivo | Some positive data exist, but the data are not sufficient for classification |

Carcinogenicity

| Name | Route | Species | Value |
|---------------------|------------|---------|--|
| METHYL ETHYL KETONE | Inhalation | Human | Not carcinogenic |
| PHENOL | Dermal | Mouse | Some positive data exist, but the data are not sufficient for classification |

| | | | |
|--------|-----------|-----|--|
| PHENOL | Ingestion | Rat | 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 classified for development | Rat | LOAEL 8.8 mg/l | during gestation |
| PHENOL | Ingestion | Not classified for female reproduction | Rat | NOAEL 321 mg/kg/day | 2 generation |
| PHENOL | Ingestion | Not classified for male reproduction | Rat | NOAEL 321 mg/kg/day | 2 generation |
| PHENOL | Ingestion | Not classified for development | Rat | NOAEL 120 mg/kg/day | during organogenesis |

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|---------------------|------------|--|--|-------------------------|---------------------|------------------------|
| ETHYL ACETATE | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| ETHYL ACETATE | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| ETHYL ACETATE | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| 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 | central nervous system depression | May cause drowsiness or dizziness | Professional judgement | NOAEL Not available | |
| METHYL ETHYL KETONE | Ingestion | liver | Not classified | Rat | NOAEL Not available | not applicable |
| METHYL ETHYL KETONE | Ingestion | kidney and/or bladder | Not classified | Rat | LOAEL 1,080 mg/kg | not applicable |
| PHENOL | Dermal | hematopoietic system | Causes damage to organs | Rat | LOAEL 108 mg/kg | not available |
| PHENOL | Dermal | heart nervous system kidney and/or bladder | Causes damage to organs | Rat | LOAEL 107 mg/kg | 24 hours |
| PHENOL | Dermal | liver | Not classified | Human | NOAEL Not available | not available |
| PHENOL | Inhalation | respiratory irritation | May cause respiratory irritation | Multiple animal species | NOAEL Not available | not available |
| PHENOL | Ingestion | kidney and/or bladder | Causes damage to organs | Rat | NOAEL 120 mg/kg/day | not applicable |
| PHENOL | Ingestion | respiratory system | Causes damage to organs | Human | NOAEL not available | poisoning and/or abuse |
| PHENOL | Ingestion | endocrine system liver | Not classified | Rat | NOAEL 224 mg/kg | not applicable |
| PHENOL | Ingestion | heart | Not classified | Human | NOAEL Not available | poisoning and/or abuse |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure |
|------|-------|-----------------|-------|---------|-------------|----------|
|------|-------|-----------------|-------|---------|-------------|----------|

| | | | | | | Duration |
|---------------------|------------|--|---|-------------------------|-----------------------|-----------------------|
| ETHYL ACETATE | Inhalation | endocrine system liver nervous system | Not classified | Rat | NOAEL 0.043 mg/l | 90 days |
| ETHYL ACETATE | Inhalation | hematopoietic system | Not classified | Rabbit | LOAEL 16 mg/l | 40 days |
| ETHYL ACETATE | Ingestion | hematopoietic system liver kidney and/or bladder | Not classified | Rat | NOAEL 3,600 mg/kg/day | 90 days |
| METHYL ETHYL KETONE | Dermal | nervous system | Not classified | Guinea pig | NOAEL Not available | 31 weeks |
| METHYL ETHYL KETONE | Inhalation | liver kidney and/or bladder heart endocrine system gastrointestinal tract bone, teeth, nails, and/or hair hematopoietic system immune system muscles | Not classified | Rat | NOAEL 14.7 mg/l | 90 days |
| METHYL ETHYL KETONE | Ingestion | liver | Not classified | Rat | NOAEL Not available | 7 days |
| METHYL ETHYL KETONE | Ingestion | nervous system | Not classified | Rat | NOAEL 173 mg/kg/day | 90 days |
| PHENOL | Dermal | nervous system | May cause damage to organs through prolonged or repeated exposure | Rabbit | LOAEL 260 mg/kg/day | 18 days |
| PHENOL | Inhalation | heart liver kidney and/or bladder respiratory system | Causes damage to organs through prolonged or repeated exposure | Guinea pig | LOAEL 0.1 mg/l | 41 days |
| PHENOL | Inhalation | nervous system | May cause damage to organs through prolonged or repeated exposure | Multiple animal species | LOAEL 0.1 mg/l | 14 days |
| PHENOL | Inhalation | hematopoietic system | Not classified | Human | NOAEL Not available | occupational exposure |
| PHENOL | Inhalation | immune system | Not classified | Rat | NOAEL 0.1 mg/l | 2 weeks |
| PHENOL | Ingestion | kidney and/or bladder | Causes damage to organs through prolonged or repeated exposure | Rat | NOAEL 12 mg/kg/day | 14 days |
| PHENOL | Ingestion | hematopoietic system | Causes damage to organs through prolonged or repeated exposure | Mouse | LOAEL 1.8 mg/kg/day | 28 days |
| PHENOL | Ingestion | nervous system | May cause damage to organs through prolonged or repeated exposure | Rat | LOAEL 308 mg/kg/day | 13 weeks |
| PHENOL | Ingestion | liver | Not classified | Rat | NOAEL 40 mg/kg/day | 14 days |
| PHENOL | Ingestion | respiratory system | Not classified | Rat | LOAEL 40 mg/kg/day | 14 days |
| PHENOL | Ingestion | immune system | Not classified | Mouse | NOAEL 1.8 mg/kg/day | 28 days |
| PHENOL | Ingestion | endocrine system | Not classified | Rat | NOAEL 120 mg/kg/day | 14 days |
| PHENOL | Ingestion | skin bone, teeth, nails, and/or hair | Not classified | Multiple animal species | NOAEL 1,204 mg/kg/day | 103 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

Ecotoxicological information

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

Chemical fate information

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

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Incinerate uncured product in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. 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.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable), D035 (Methyl ethyl ketone)

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards

Flammable (gases, aerosols, liquids, or solids)

Health Hazards

Hazard Not Otherwise Classified (HNOC)

Serious eye damage or eye irritation

Skin Corrosion or Irritation

Specific target organ toxicity (single or repeated exposure)

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Ingredient
PHENOL

C.A.S. No
108-95-2

% by Wt
Trade Secret 1 - 5

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

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.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification

Health: 3 Flammability: 3 Instability: 0 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

| | | | |
|------------------------|-----------|-------------------------|----------|
| Document Group: | 10-2457-9 | Version Number: | 17.01 |
| Issue Date: | 10/01/18 | Supersedes Date: | 05/21/18 |

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M.

3M USA SDSs are available at www.3M.com