

Safety Data Sheet

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SECTION 1: Identification

1.1. Product identifier

3M(TM) Scotch-Seal(TM) Industrial Sealant 800 Reddish Brown

Product Identification Numbers

62-0800-0635-6, 62-0800-2631-3, 62-0800-2635-4, 62-0800-7530-2, 62-0800-8530-1, 62-0800-9530-0

1.2. Recommended use and restrictions on use

Recommended use

Industrial Sealant, Industrial use

1.3. Supplier's details

MANUFACTURER: 3M

DIVISION: Industrial Adhesives and Tapes 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 2A.

Reproductive Toxicity: Category 2. Carcinogenicity: Category 2.

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

Highly flammable liquid and vapor.

Causes serious eye irritation.

May cause drowsiness or dizziness.

Suspected of damaging fertility or the unborn child.

Suspected of causing cancer.

Precautionary Statements

General:

Keep out of reach of children.

Prevention:

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves and eye/face protection.

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.

If eye irritation persists: Get medical advice/attention.

IF exposed or concerned: Get medical advice/attention.

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

Storage:

Keep cool.

Keep container tightly closed.

Store locked up in a well-ventilated place.

Disposal:

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

2.3. Hazards not otherwise classified

None.

4% of the mixture consists of ingredients of unknown acute oral toxicity.

4% of the mixture consists of ingredients of unknown acute dermal toxicity.

8% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Methyl Ethyl Ketone	78-93-3	35 - 50 Trade Secret *
Acrylonitrile-Butadiene Polymer	9003-18-3	10 - 20 Trade Secret *
Glycerol Esters of Rosin Acids	8050-31-5	5 - 15 Trade Secret *
Limestone	1317-65-3	5 - 10 Trade Secret *
Methyl Isobutyl Ketone	108-10-1	3 - 7 Trade Secret *
Titanium Dioxide	13463-67-7	1 - 5 Trade Secret *
Slag Wool	Unknown	1 - 5 Trade Secret *
Iron Oxide	1332-37-2	1 - 5 Trade Secret *
tri(Butoxyethyl) Phosphate	78-51-3	1 - 5 Trade Secret *
Salicylic Acid	69-72-7	1 - 5 Trade Secret *
Zinc Oxide	1314-13-2	< 2 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 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

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> Aldehydes Condition

During Combustion

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HydrocarbonsDuring CombustionCarbon monoxideDuring CombustionCarbon dioxideDuring CombustionHydrogen CyanideDuring CombustionKetonesDuring CombustionOxides of NitrogenDuring CombustionOxides of ZincDuring 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

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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/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. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (gloves, respirators, etc.) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from acids. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection

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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
Methyl Isobutyl Ketone	108-10-1	ACGIH	TWA:20 ppm;STEL:75 ppm	A3: Confirmed animal
				carcin.
Methyl Isobutyl Ketone	108-10-1	OSHA	TWA:410 mg/m3(100 ppm)	
Zinc Oxide	1314-13-2	OSHA	TWA(as fume):5	
			mg/m3;TWA(as total dust):15	
			mg/m3;TWA(respirable	
			fraction):5 mg/m3	
Zinc Oxide	1314-13-2	ACGIH	TWA(respirable fraction):2	
			mg/m3;STEL(respirable	
			fraction):10 mg/m3	
Limestone	1317-65-3	OSHA	TWA(as total dust):15	
			mg/m3;TWA(respirable	
			fraction):5 mg/m3	
Titanium Dioxide	13463-67-7	OSHA	TWA(as total dust):15 mg/m3	
Titanium Dioxide	13463-67-7	ACGIH	TWA:10 mg/m3	A4: Not class. as human
				carcin
Titanium Dioxide	13463-67-7	CMRG	TWA(as respirable dust):5	
			mg/m3	
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

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:

Indirect Vented Goggles

Skin/hand protection

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

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

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: Reddish-brown, heavy syrup - ketone odor

Odor threshold No Data Available pН Not Applicable **Melting point** Not Applicable **Boiling Point** 80 °C [Details: MEK]

Flash Point 16 °F [Test Method: Closed Cup] [Details: MEK]

Evaporation rate 2.7 [*Ref Std:* WATER=1]

Not Applicable Flammability (solid, gas) 1.2 % volume Flammable Limits(LEL) 10.0 % volume Flammable Limits(UEL)

Vapor Pressure <=91 mmHg [@ 77 °F] **Vapor Density** 2.41 [*Ref Std:* AIR=1]

Density 1.04 g/ml

Specific Gravity 1.04 [*Ref Std*: WATER=1] Solubility in Water Slight (less than 10%) Solubility- non-water No Data Available Partition coefficient: n-octanol/ water No Data Available 404 °C [Details: MEK] **Autoignition temperature Decomposition temperature** No Data Available

28,700 centipoise [@ 73.4 °F] Viscosity **Hazardous Air Pollutants** 6.2 % weight [Test Method: Calculated]

485 g/l [Details: EU VOC content] Volatile Organic Compounds

Percent volatile 40 - 50 % weight

VOC Less H2O & Exempt Solvents 485 g/l [Test Method: calculated SCAQMD rule 443.1]

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
Strong acids

10.6. Hazardous decomposition products

Substance

Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

Contact with the skin during product use is not expected to result in significant irritation.

Eye Contact:

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

Ingestion:

May be harmful if swallowed.

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

May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

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

Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

Ingredient	CAS No.	Class Description	Regulation
Methyl Isobutyl Ketone	108-10-1	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Titanium Dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on 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-		No data available; calculated ATE > 50 mg/l
•	Vapor(4 hr)		
Overall product	Ingestion		No data available; calculated ATE 2,000 - 5,000
•			mg/kg
Methyl Ethyl Ketone	Dermal	Rabbit	LD50 > 8,050 mg/kg
Methyl Ethyl Ketone	Inhalation-	Rat	LC50 34.5 mg/l
	Vapor (4		
	hours)		
Methyl Ethyl Ketone	Ingestion	Rat	LD50 2,737 mg/kg
Acrylonitrile-Butadiene Polymer	Dermal	Rabbit	LD50 > 15,000 mg/kg
Acrylonitrile-Butadiene Polymer	Ingestion	Rat	LD50 > 30,000 mg/kg
Glycerol Esters of Rosin Acids	Dermal	Rabbit	LD50 > 5,000 mg/kg
Glycerol Esters of Rosin Acids	Ingestion	Rat	LD50 > 2,000 mg/kg
Methyl Isobutyl Ketone	Dermal	Rabbit	LD50 > 16,000 mg/kg
Methyl Isobutyl Ketone	Inhalation-	Rat	LC50 >8.2,<16.4 mg/l
	Vapor (4		
	hours)		
Methyl Isobutyl Ketone	Ingestion	Rat	LD50 3,038 mg/kg
Limestone	Dermal	Rat	LD50 > 2,000 mg/kg
Limestone	Inhalation-	Rat	LC50 3.0 mg/l
	Dust/Mist		
••	(4 hours)		1770 6 170 #
Limestone	Ingestion	Rat	LD50 6,450 mg/kg
tri(Butoxyethyl) Phosphate	Dermal	Rabbit	LD50 > 5,000 mg/kg
tri(Butoxyethyl) Phosphate	Inhalation-	Rat	LC50 > 6.4 mg/l
	Dust/Mist		
tri(Butoxyethyl) Phosphate	(4 hours) Ingestion	Rat	LD50 4,700 mg/kg
Titanium Dioxide	Dermal	Rabbit	LD50 4,700 mg/kg LD50 > 10,000 mg/kg
Titanium Dioxide Titanium Dioxide	Inhalation-	Rat	LC50 > 6.82 mg/l
Thanium Dioxide	Dust/Mist	Kat	LC30 > 0.82 Hig/I
	(4 hours)		
Titanium Dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Iron Oxide	Dermal	Not	LD50 3,100 mg/kg
Holl Oxide	Dermai	available	ED30 3,100 mg/kg
Iron Oxide	Ingestion	Not	LD50 3,700 mg/kg
non Oxide	ingestion	available	EB30 3,700 mg/kg
Zinc Oxide	Dermal	a , and one	LD50 estimated to be > 5,000 mg/kg
Zinc Oxide	Inhalation-	Rat	LC50 > 5.7 mg/l
	Dust/Mist		Zeco z c., mgr
	(4 hours)		
Zinc Oxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Salicylic Acid	Dermal	Rat	LD50 > 2,000 mg/kg
Salicylic Acid	Ingestion	Rat	LD50 891 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Skill Corrosion/Irritation		
Name	Species	Value
Methyl Ethyl Ketone	Rabbit	Minimal irritation
Acrylonitrile-Butadiene Polymer	Professio	No significant irritation
	nal	
	judgeme	
	nt	

Glycerol Esters of Rosin Acids	Rabbit	Minimal irritation
Methyl Isobutyl Ketone	Rabbit	Mild irritant
Limestone	Rabbit	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation
Iron Oxide	Rabbit	No significant irritation
Zinc Oxide	Human	No significant irritation
	and	
	animal	
Salicylic Acid	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Methyl Ethyl Ketone	Rabbit	Severe irritant
Acrylonitrile-Butadiene Polymer	Professio	No significant irritation
	nal	
	judgeme	
	nt	
Glycerol Esters of Rosin Acids	Rabbit	Mild irritant
Methyl Isobutyl Ketone	Rabbit	Mild irritant
Limestone	Rabbit	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation
Iron Oxide	Rabbit	No significant irritation
Zinc Oxide	Rabbit	Mild irritant
Salicylic Acid	Rabbit	Corrosive

Skin Sensitization

Name	Species	Value
Glycerol Esters of Rosin Acids	Guinea	Not sensitizing
	pig	
Methyl Isobutyl Ketone	Guinea	Not sensitizing
	pig	
Titanium Dioxide	Human	Not sensitizing
	and	
	animal	
Iron Oxide	Human	Some positive data exist, but the data are not
		sufficient for classification
Zinc Oxide	Guinea	Some positive data exist, but the data are not
	pig	sufficient for classification
Salicylic Acid	Mouse	Not sensitizing

Photosensitization

Name	Species	Value
Salicylic Acid	Mouse	Not sensitizing

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		
Methyl Ethyl Ketone	In Vitro	Not mutagenic		
Glycerol Esters of Rosin Acids	In Vitro	Not mutagenic		
Methyl Isobutyl Ketone	In Vitro	Not mutagenic		
Titanium Dioxide	In Vitro	Not mutagenic		
Titanium Dioxide	In vivo	Not mutagenic		
Iron Oxide	In Vitro	Not mutagenic		
Zinc Oxide	In Vitro	Some positive data exist, but the data are not		
		sufficient for classification		
Zinc Oxide	In vivo	Some positive data exist, but the data are not		
		sufficient for classification		
Salicylic Acid	In Vitro	Not mutagenic		
Salicylic Acid	In vivo	Not mutagenic		

Carcinogenicity

Name	Route	Species	Value
Methyl Ethyl Ketone	Inhalation	Human	Not carcinogenic
Methyl Isobutyl Ketone	Inhalation	Multiple animal species	Carcinogenic
Titanium Dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium Dioxide	Inhalation	Rat	Carcinogenic
Iron Oxide	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	ame 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	
Glycerol Esters of Rosin Acids	Ingestion	Not toxic to female reproduction	Rat	NOAEL 5,000 mg/kg/day	90 days	
Glycerol Esters of Rosin Acids	Ingestion	Not toxic to male reproduction	Rat	NOAEL 5,000 mg/kg/day	90 days	
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 organogenesi s	
Limestone	Ingestion	Not toxic to development	Rat	NOAEL 625 mg/kg/day	premating & during gestation	
Zinc Oxide	Ingestion	Some positive reproductive/developmental data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 125 mg/kg/day	premating & during gestation	
Salicylic Acid	Ingestion	Toxic to development	Rat	NOAEL 75 mg/kg/day	during organogenesi s	

Target Organ(s)

Specific Target Organ Toxicity - single exposure

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 classifica tion	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 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
Limestone	Inhalation	respiratory system	All data are negative	Rat	NOAEL 0.812 mg/l	90 minutes

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 Ketone	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	7 days
Methyl Ethyl Ketone	Ingestion	nervous system	All data are negative	Rat	NOAEL 173 mg/kg/day	90 days
Glycerol Esters of Rosin Acids	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 5,000 mg/kg/day	90 days
Glycerol Esters of Rosin Acids	Ingestion	heart skin endocrine system bone, teeth, nails, and/or hair blood bone marrow hematopoietic system immune system muscles nervous system eyes kidney and/or bladder respiratory system	All data are negative	Rat	NOAEL 5,000 mg/kg/day	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	NOAEL 0.41	13 weeks

				animal species	mg/l	
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
Limestone	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Titanium Dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.010 mg/l	2 years
Titanium Dioxide	Inhalation	pulmonary fibrosis	All data are negative	Human	NOAEL Not available	occupational exposure
Iron Oxide	Inhalation	pulmonary fibrosis pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Zinc Oxide	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 600 mg/kg/day	10 days
Zinc Oxide	Ingestion	endocrine system hematopoietic system kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Other	NOAEL 500 mg/kg/day	6 months
Salicylic Acid	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	3 days

Aspiration Hazard

Name	Value
Methyl Isobutyl Ketone	Some positive data exist, but 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 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.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

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

<u>Ingredient</u>	C.A.S. No	% by Wt
Methyl Isobutyl Ketone	108-10-1	3 - 7
tri(Butoxyethyl) Phosphate (GLYCOL ETHERS)	78-51-3	1 - 5
Zinc Oxide (ZINC COMPOUNDS)	1314-13-2	< 2

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.

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: 2 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.

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