

Safety Data Sheet

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SECTION 1: Identification

1.1. Product identifier

3MTM Scotch-SealTM Metal Sealant 2084 Silver

Product Identification Numbers

ID Number	UPC	ID Number	UPC
62-2084-2631-2	00-21200-20227-8	62-2084-2635-3	
62-2084-8530-0	00-21200-20230-8	62-2084-9530-9	00-21200-20231-5

1.2. Recommended use and restrictions on use

Recommended use Metal sealant., Metal Sealant

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. 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.

Precautionary Statements

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.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Acetone	67-64-1	40 - 70 Trade Secret *
Acrylonitrile-Butadiene Polymer	9003-18-3	10 - 30 Trade Secret *

Phenolic Resin	Trade Secret*	5 - 10 Trade Secret *
Kaolin	1332-58-7	5 - 10 Trade Secret *
Rosin Ester	8050-31-5	3 - 7 Trade Secret *
Zinc Oxide	1314-13-2	1 - 5 Trade Secret *
Salicylic Acid	69-72-7	1 - 5 Trade Secret *
Aluminum	7429-90-5	0.5 - 1.5 Trade Secret *
Amorphous Silica	112945-52-5	0.5 - 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 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

Substance	<u>Condition</u>
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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Eliminate all ignition sources if safe to do so. 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 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

For industrial or professional use only. 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. Protect from sunlight. 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
SILICA, AMORPHOUS	112945-52-	OSHA	TWA concentration:0.8	
	5		mg/m3;TWA:20 millions of	
			particles/cu. ft.	
Zinc Oxide	1314-13-2	ACGIH	TWA(respirable fraction):2	
			mg/m3;STEL(respirable	
			fraction):10 mg/m3	
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	
Kaolin	1332-58-7	ACGIH	TWA(respirable fraction):2	A4: Not class. as human
			mg/m3	carcin
KAOLIN, TOTAL DUST	1332-58-7	OSHA	TWA(as total dust):15	
			mg/m3;TWA(respirable	
			fraction):5 mg/m3	
Acetone	67-64-1	ACGIH	TWA:500 ppm;STEL:750 ppm	A4: Not class. as human
				carcin
Acetone	67-64-1	OSHA	TWA:2400 mg/m3(1000 ppm)	
Aluminum	7429-90-5	ACGIH	TWA(respirable fraction):1	A4: Not class. as human
			mg/m3	carcin
Aluminum	7429-90-5	OSHA	TWA(as Al respirable dust):5	
			mg/m3;TWA(as Al total	
			dust):15 mg/m3	

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.

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

Specific Physical Form:PasteOdor, Color, Grade:Aluminum color; Ketone odorOdor thresholdNo Data AvailablepHNot ApplicableMelting pointNot ApplicableBoiling Point>=56 °C [Details: Acetone]Flash Point15 °F [Test Method: Closed Cup]Evaporation rate1.9 [Ref Std: ETHER=1]Flammability (solid, gas)Not ApplicableFlammability (solid, gas)Not ApplicableFlammable Limits(UEL)2.6 % volumeVapor Pressure<=185 mmHg [@ 68 °F]	General Physical Form:	Liquid
Odor thresholdNo Data AvailablepHNot ApplicableMelting pointNot ApplicableBoiling Point>=56 °C [Details: Acetone]Flash Point15 °F [Test Method: Closed Cup]Evaporation rate1.9 [Ref Std: ETHER=1]Flammability (solid, gas)Not ApplicableFlammabile Limits(LEL)2.6 % volumeFlammable Limits(UEL)12.8 % volumeVapor Pressure<=185 mmHg [@ 68 °F]Vapor Density2.0 [Ref Std: AIR=1]Density1.0 g/mlSpecific Gravity1.0 [Ref Std: WATER=1]Solubility in WaterSlight (less than 10%)Solubility - non-waterNo Data AvailablePartition coefficient: n-octanol/waterNo Data AvailableAutoignition temperatureKo Data AvailableViscosity30,000 centipoise [@ 73.4 °F]Hazardous Air Pollutants<=0.4 % weight [Test Method: Calculated]Volatile Organic Compounds1.0 % [Test Method: calculated SCAQMD rule 443.1]	Specific Physical Form:	Paste
pHNot ApplicableMelting pointNot ApplicableBoiling Point>=56 °C [Details: Acetone]Flash Point15 °F [Test Method: Closed Cup]Evaporation rate1.9 [Ref Std: ETHER=1]Flammability (solid, gas)Not ApplicableFlammable Limits(LEL)2.6 % volumeFlammable Limits(UEL)12.8 % volumeVapor Pressure<=185 mmHg [@ 68 °F]Vapor Density2.0 [Ref Std: AIR=1]Density1.0 g/mlSpecific Gravity1.0 [Ref Std: WATER=1]Solubility in WaterSlight (less than 10%)Solubility- non-waterNo Data AvailablePartition coefficient: n-octanol/ waterNo Data AvailableAutoignition temperatureNo Data AvailableViscosity30,000 centipoise [@ 73.4 °F]Hazardous Air Pollutants<=0.4 % weight [Test Method: Calculated]Volatile Organic Compounds1.0 % [Test Method: calculated SCAQMD rule 443.1]	Odor, Color, Grade:	Aluminum color; Ketone odor
Melting pointNot ApplicableBoiling Point>=56 °C [Details: Acetone]Flash Point15 °F [Test Method: Closed Cup]Evaporation rate1.9 [Ref Std: ETHER=1]Flammability (solid, gas)Not ApplicableFlammable Limits(LEL)2.6 % volumeFlammable Limits(UEL)12.8 % volumeVapor Pressure<=185 mmHg [@ 68 °F]Vapor Density2.0 [Ref Std: AIR=1]Density1.0 g/mlSpecific Gravity1.0 [Ref Std: WATER=1]Solubility in WaterSlight (less than 10%)Solubility non-waterNo Data AvailablePartition coefficient: n-octanol/ waterNo Data AvailableViscosity30,000 centipoise [@ 73.4 °F]Hazardous Air Pollutants<=0.4 % weight [Test Method: Calculated]Volatile Organic Compounds1.0 % [Test Method: calculated SCAQMD rule 443.1]	Odor threshold	No Data Available
Boiling Point>=56 °C [Details: Acetone]Flash Point15 °F [Test Method: Closed Cup]Evaporation rate1.9 [Ref Std: ETHER=1]Flammability (solid, gas)Not ApplicableFlammable Limits(LEL)2.6 % volumeFlammable Limits(UEL)12.8 % volumeVapor Pressure<=185 mmHg [@ 68 °F]Vapor Density2.0 [Ref Std: AIR=1]Density1.0 g/mlSpecific Gravity1.0 [Ref Std: WATER=1]Solubility in WaterSlight (less than 10%)Solubility- non-waterNo Data AvailablePartition coefficient: n-octanol/waterNo Data AvailableAutoignition temperature465 °C [Details: Acetone]Decomposition temperatureNo Data AvailableViscosity30,000 centipoise [@ 73.4 °F]Hazardous Air Pollutants<=0.4 % weight [Test Method: Calculated]Volatile Organic Compounds1.0 % [Test Method: calculated SCAQMD rule 443.1]	рН	Not Applicable
Flash Point15 °F [Test Method: Closed Cup]Evaporation rate1.9 [Ref Std: ETHER=1]Flammability (solid, gas)Not ApplicableFlammable Limits(LEL)2.6 % volumeFlammable Limits(UEL)12.8 % volumeVapor Pressure<=185 mmHg [@ 68 °F]	Melting point	Not Applicable
Evaporation rate1.9 [Ref Std: ETHER=1]Flammability (solid, gas)Not ApplicableFlammable Limits(LEL)2.6 % volumeFlammable Limits(UEL)12.8 % volumeVapor Pressure<=185 mmHg [@ 68 °F]	Boiling Point	>=56 °C [Details: Acetone]
Flammability (solid, gas)Not ApplicableFlammable Limits(LEL)2.6 % volumeFlammable Limits(UEL)12.8 % volumeVapor Pressure<=185 mmHg [@ 68 °F]	Flash Point	15 °F [Test Method: Closed Cup]
Flammable Limits(LEL)2.6 % volumeFlammable Limits(UEL)12.8 % volumeVapor Pressure<=185 mmHg [@ 68 °F]	Evaporation rate	1.9 [<i>Ref Std:</i> ETHER=1]
Flammable Limits(UEL)12.8 % volumeVapor Pressure<=185 mmHg [@ 68 °F]	Flammability (solid, gas)	Not Applicable
Vapor Pressure<=185 mmHg [@ 68 °F]		2.6 % volume
Vapor Density2.0 [Ref Std: AIR=1]Density1.0 g/mlSpecific Gravity1.0 [Ref Std: WATER=1]Solubility in WaterSlight (less than 10%)Solubility- non-waterNo Data AvailablePartition coefficient: n-octanol/ waterNo Data AvailableAutoignition temperature465 °C [Details: Acetone]Decomposition temperatureNo Data AvailableViscosity30,000 centipoise [@ 73.4 °F]Hazardous Air Pollutants<=0.4 % weight [Test Method: Calculated]	Flammable Limits(UEL)	12.8 % volume
Density1.0 g/mlSpecific Gravity1.0 [Ref Std: WATER=1]Solubility in WaterSlight (less than 10%)Solubility- non-waterNo Data AvailablePartition coefficient: n-octanol/ waterNo Data AvailableAutoignition temperature465 °C [Details: Acetone]Decomposition temperatureNo Data AvailableViscosity30,000 centipoise [@ 73.4 °F]Hazardous Air Pollutants<=0.4 % weight [Test Method: Calculated]	Vapor Pressure	<=185 mmHg [@ 68 °F]
Specific Gravity1.0 [Ref Std: WATER=1]Solubility in WaterSlight (less than 10%)Solubility- non-waterNo Data AvailablePartition coefficient: n-octanol/ waterNo Data AvailableAutoignition temperature465 °C [Details: Acetone]Decomposition temperatureNo Data AvailableViscosity30,000 centipoise [@ 73.4 °F]Hazardous Air Pollutants<=0.4 % weight [Test Method: Calculated]	Vapor Density	2.0 [<i>Ref Std:</i> AIR=1]
Solubility in WaterSlight (less than 10%)Solubility- non-waterNo Data AvailablePartition coefficient: n-octanol/ waterNo Data AvailableAutoignition temperature465 °C [Details: Acetone]Decomposition temperatureNo Data AvailableViscosity30,000 centipoise [@ 73.4 °F]Hazardous Air Pollutants<=0.4 % weight [Test Method: Calculated]	Density	1.0 g/ml
Solubility- non-waterNo Data AvailablePartition coefficient: n-octanol/ waterNo Data AvailableAutoignition temperatureNo Data AvailableDecomposition temperatureNo Data AvailableViscosity30,000 centipoise [@ 73.4 °F]Hazardous Air Pollutants<=0.4 % weight [Test Method: Calculated]	Specific Gravity	1.0 [<i>Ref Std:</i> WATER=1]
Partition coefficient: n-octanol/ waterNo Data AvailableAutoignition temperatureNo Data AvailableDecomposition temperatureNo Data AvailableViscosity30,000 centipoise [@ 73.4 °F]Hazardous Air Pollutants<=0.4 % weight [Test Method: Calculated]	Solubility in Water	Slight (less than 10%)
Autoignition temperature465 °C [Details: Acetone]Decomposition temperatureNo Data AvailableViscosity30,000 centipoise [@ 73.4 °F]Hazardous Air Pollutants<=0.4 % weight [Test Method: Calculated]	Solubility- non-water	No Data Available
Decomposition temperatureNo Data AvailableViscosity30,000 centipoise [@ 73.4 °F]Hazardous Air Pollutants<=0.4 % weight [Test Method: Calculated]Volatile Organic Compounds1.0 % [Test Method: calculated SCAQMD rule 443.1]		
Viscosity30,000 centipoise [@ 73.4 °F]Hazardous Air Pollutants<=0.4 % weight [Test Method: Calculated]	Autoignition temperature	465 °C [Details: Acetone]
Hazardous Air Pollutants<=0.4 % weight [Test Method: Calculated]		
Volatile Organic Compounds1.0 % [Test Method: calculated SCAQMD rule 443.1]	Viscosity	
	Hazardous Air Pollutants	
VOC Less H2O & Event Solvents 34 g/l [Test Method: calculated SCAOMD rule 443.1]	· ·	
sign [rest method. calculated ben Qmb full +45.1]	VOC Less H2O & Exempt Solvents	34 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

10.6. Hazardous decomposition products

Substance None known. **Condition**

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:

Dermal Defatting: Signs/symptoms may include localized redness, itching, drying and cracking of skin.

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 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.

Toxicological Data

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
Acetone	Dermal	Rabbit	LD50 > 15,688 mg/kg
Acetone	Inhalation-	Rat	LC50 76 mg/l
	Vapor (4		
	hours)		
Acetone	Ingestion	Rat	LD50 5,800 mg/kg
Acrylonitrile-Butadiene Polymer	Dermal	Rabbit	LD50 > 15,000 mg/kg
Acrylonitrile-Butadiene Polymer	Ingestion	Rat	LD50 > 30,000 mg/kg
Kaolin	Dermal		LD50 estimated to be $> 5,000 \text{ mg/kg}$

Kaolin	Ingestion	Human	LD50 > 15,000 mg/kg
Rosin Ester	Dermal	Rabbit	LD50 > 5,000 mg/kg
Rosin Ester	Ingestion	Rat	LD50 > 2,000 mg/kg
Phenolic Resin	Ingestion	Rat	LD50 5,660 mg/kg
Salicylic Acid	Dermal	Rat	LD50 > 2,000 mg/kg
Salicylic Acid	Ingestion	Rat	LD50 891 mg/kg
Zinc Oxide	Dermal		LD50 estimated to be $> 5,000 \text{ mg/kg}$
Zinc Oxide	Inhalation-	Rat	LC50 > 5.7 mg/l
	Dust/Mist		
	(4 hours)		
Zinc Oxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Aluminum	Dermal		LD50 estimated to be $> 5,000 \text{ mg/kg}$
Aluminum	Ingestion		LD50 estimated to be $> 5,000 \text{ mg/kg}$
Aluminum	Inhalation-	Rat	LC50 > .888 mg/l
	Dust/Mist		
	(4 hours)		
Amorphous Silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Amorphous Silica	Inhalation-	Rat	LC50 > 0.691 mg/l
	Dust/Mist		
	(4 hours)		
Amorphous Silica	Ingestion	Rat	LD50 > 5,110 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Acetone	Mouse	Minimal irritation
Acrylonitrile-Butadiene Polymer	Professio	No significant irritation
	nal	
	judgeme	
	nt	
Kaolin	Professio	No significant irritation
	nal	
	judgeme	
	nt	
Rosin Ester	Rabbit	Minimal irritation
Salicylic Acid	Rabbit	No significant irritation
Zinc Oxide	Human	No significant irritation
	and	
	animal	
Aluminum	Rabbit	No significant irritation
Amorphous Silica	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Acetone	Rabbit	Severe irritant
Acrylonitrile-Butadiene Polymer	Professio	No significant irritation
	nal	
	judgeme	
	nt	
Kaolin	Professio	No significant irritation
	nal	
	judgeme	
	nt	
Rosin Ester	Rabbit	Mild irritant
Salicylic Acid	Rabbit	Corrosive
Zinc Oxide	Rabbit	Mild irritant
Aluminum	Rabbit	No significant irritation
Amorphous Silica	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Rosin Ester	Guinea	Not sensitizing
	pig	
Phenolic Resin	Human	Some positive data exist, but the data are not

		sufficient for classification
Salicylic Acid	Mouse	Not sensitizing
Zinc Oxide	Guinea	Some positive data exist, but the data are not
	pig	sufficient for classification
Aluminum	Guinea	Not sensitizing
	pig	
Amorphous Silica	Human	Not sensitizing
	and	
	animal	

Photosensitization

Name	Species	Value
Salicylic Acid	Mouse	Not sensitizing

Respiratory Sensitization

Name	Species	Value
Aluminum	Human	Some positive data exist, but the data are not sufficient for classification

Germ Cell Mutagenicity

Name	Route	Value
Acetone	In vivo	Not mutagenic
Acetone	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Rosin Ester	In Vitro	Not mutagenic
Salicylic Acid	In Vitro	Not mutagenic
Salicylic Acid	In vivo	Not mutagenic
Zinc Oxide	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Zinc Oxide	In vivo	Some positive data exist, but the data are not
		sufficient for classification
Aluminum	In Vitro	Not mutagenic
Amorphous Silica	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Acetone	Not	Multiple	Not carcinogenic
	Specified	animal	
		species	
Kaolin	Inhalation	Multiple	Not carcinogenic
		animal	-
		species	
Amorphous Silica	Not	Mouse	Some positive data exist, but the data are not
	Specified		sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Acetone	Ingestion	Not toxic to female reproduction	Mouse	NOAEL 11,298 mg/kg/day	13 weeks
Acetone	Ingestion	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,700 mg/kg/day	13 weeks
Acetone	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 5.2 mg/l	during organogenesi s
Rosin Ester	Ingestion	Not toxic to female reproduction	Rat	NOAEL 5,000 mg/kg/day	90 days

Rosin Ester	Ingestion	Not toxic to male reproduction	Rat	NOAEL 5,000 mg/kg/day	90 days
Salicylic Acid	Ingestion	Toxic to development	Rat	NOAEL 75 mg/kg/day	during organogenesi s
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
Amorphous Silica	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Amorphous Silica	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Amorphous Silica	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesi s

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Acetone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Acetone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Acetone	Inhalation	immune system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL 1.19 mg/l	6 hours
Acetone	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL Not available	
Acetone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	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
Acetone	Dermal	eyes	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL Not available	3 weeks
Acetone	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL 3 mg/l	6 weeks
Acetone	Inhalation	immune system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL 1.19 mg/l	6 days
Acetone	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL 119 mg/l	not available
Acetone	Inhalation	heart liver	All data are negative	Rat	NOAEL 45 mg/l	8 weeks
Acetone	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 900 mg/kg/day	13 weeks
Acetone	Ingestion	heart	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 200 mg/kg/day	13 weeks
Acetone	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 3,896 mg/kg/day	14 days
Acetone	Ingestion	eyes	All data are negative	Rat	NOAEL	13 weeks

					3,400	
					mg/kg/day	
Acetone	Ingestion	respiratory system	All data are negative	Rat	NOAEL 2,500	13 weeks
Acetone	Ingestion	muscles	All data are negative	Rat	mg/kg/day NOAEL 2,500 mg/kg	13 weeks
Acetone	Ingestion	skin bone, teeth, nails, and/or hair	All data are negative	Mouse	NOAEL 11,298 mg/kg/day	13 weeks
Kaolin	Inhalation	pneumoconiosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL NA	occupational exposure
Kaolin	Inhalation	pulmonary fibrosis	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	
Rosin Ester	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 5,000 mg/kg/day	90 days
Rosin Ester	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
Salicylic Acid	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	3 days
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
Aluminum	Inhalation	nervous system respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Amorphous Silica	Inhalation	respiratory system silicosis	All data are negative	Human	NOAEL Not available	occupational exposure

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 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)

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	<u>% by Wt</u>
Zinc Oxide (ZINC COMPOUNDS)	1314-13-2	1 - 5
Aluminum	7429-90-5	0.5 - 1.5
Aluminum (Aluminum)	7429-90-5	0.5 - 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.

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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