Safety Data Sheet

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SECTION 1: Identification

1.1. Product identifier
3M Scotchkote WB Urethane PU WB AG 180, Tinted White (Part A)

Product Identification Numbers
GR-2001-3420-7

1.2. Recommended use and restrictions on use

Recommended use
Coating, External UV finish coat.

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	3M United Kingdom Infrastructure Protection 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
Carcinogenicity: Category 1A.
Flammable Liquid: Category 4.
Skin Sensitizer: Category 1.

2.2. Label elements
Signal word
Danger

Symbols
Exclamation mark | Health Hazard |

Pictograms

Hazard Statements
Combustible liquid.

May cause an allergic skin reaction.
May cause cancer.

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.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wear protective gloves and eye/face protection.
Contaminated work clothing must not be allowed out of the workplace.

Response:
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
IF exposed or concerned: Get medical advice/attention.
Specific treatment (see Notes to Physician on this label).
In case of fire: Use a fire fighting agent suitable for flammable liquids and solids such as dry chemical or carbon dioxide to extinguish.

Storage:
Store in a well-ventilated place. 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
None.

55% of the mixture consists of ingredients of unknown acute oral toxicity.
63% of the mixture consists of ingredients of unknown acute dermal toxicity.
66% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
NON-HAZARDOUS INGREDIENTS	Mixture	60 - 100
TITANIUM DIOXIDE	13463-67-7	20 - 30 Trade Secret *
IRON OXIDE (FE2O3)	1309-37-1	< 10 Trade Secret *
IRON HYDROXIDE OXIDE	20344-49-4	< 10 Trade Secret *
1,2-PROPYLENE GLYCOL 1-MONOBUTYL ETHER	5131-66-8	1 - 5 Trade Secret *
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	64742-95-6	1 - 5 Trade Secret *

CARBON BLACK	1333-86-4	< 5 Trade Secret *
PROPYLENE GLYCOL	57-55-6	< 5 Trade Secret *
TRIETHYLAMINE	121-44-8	< 1 Trade Secret *
2,4,7,9-TETRAMETHYL-5-DECYNE-4,7-DIOL	126-86-3	< 0.5 Trade Secret *
QUARTZ SILICA	14808-60-7	< 0.3 Trade Secret *
N,N-DIMETHYLETHANOLAMINE	108-01-0	< 0.3 Trade Secret *
7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-	64338-16-5	< 0.3 Trade Secret *
1,2-BENZISOTHIAZOLIN-3-ONE	2634-33-5	< 0.05 Trade Secret *
2-BROMO-2-NITRO-1,3-PROPANEDIOL	52-51-7	< 0.05 Trade Secret *
2-METHYL-4-ISOTHIAZOLINE-3-ONE	2682-20-4	< 0.005 Trade Secret *
2-OCTYL-3(2H)-ISOTHIAZOLONE	26530-20-1	< 0.005 Trade Secret *
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	55965-84-9	<= 0.00015 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:
Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, 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 and solids such as dry chemical or carbon dioxide to extinguish.

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

Hazardous Decomposition or By-Products

Substance	Condition
Aldehydes	During Combustion

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. 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. 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 detergent and water. 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. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep cool. Store away from acids. Store away from strong bases. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
N,N-DIMETHYLETHANOLAMINE	108-01-0	Chemical Manufacturer Rec Guid	TWA:5 ppm;STEL:25 ppm	Skin Notation
TRIETHYLAMINE	121-44-8	Amer Conf of Gov. Indust.	TWA:1 ppm;STEL:3 ppm	Skin Notation

		Hyg.		
TRIETHYLAMINE	121-44-8	US Dept of Labor - OSHA	TWA:100 mg/m3(25 ppm)	
IRON OXIDE (FE2O3)	1309-37-1	Amer Conf of Gov. Indust. Hyg.	TWA(respirable fraction):5 mg/m3	
IRON OXIDE (FE2O3)	1309-37-1	US Dept of Labor - OSHA	TWA(as fume):10 mg/m3	
ROUGE	1309-37-1	US Dept of Labor - OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
CARBON BLACK	1333-86-4	Amer Conf of Gov. Indust. Hyg.	TWA(inhalable fraction):3 mg/m3	
CARBON BLACK	1333-86-4	Chemical Manufacturer Rec Guid	TWA:0.5 mg/m3	
CARBON BLACK	1333-86-4	US Dept of Labor - OSHA	TWA:3.5 mg/m3	
TITANIUM DIOXIDE	13463-67-7	Amer Conf of Gov. Indust. Hyg.	TWA:10 mg/m3	
TITANIUM DIOXIDE	13463-67-7	Chemical Manufacturer Rec Guid	TWA(as respirable dust):5 mg/m3	
TITANIUM DIOXIDE	13463-67-7	US Dept of Labor - OSHA	TWA(as total dust):15 mg/m3	
QUARTZ SILICA	14808-60-7	Amer Conf of Gov. Indust. Hyg.	TWA(respirable fraction):0.025 mg/m3	
QUARTZ SILICA	14808-60-7	US Dept of Labor - OSHA	TWA concentration(as total dust):0.3 mg/m3;TWA concentration(respirable):0.1 mg/m3(2.4 millions of particles/cu. ft.)	
2-METHYL-4-ISOTHIAZOLINE-3-ONE	2682-20-4	Chemical Manufacturer Rec Guid	TWA:1.5 mg/m3;STEL:4.5 mg/m3	Sensitizer
PROPYLENE GLYCOL	57-55-6	American Indust. Hygiene Assoc	TWA(as aerosol):10 mg/m3	
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	64742-95-6	Chemical Manufacturer Rec Guid	TWA:50 ppm(245 mg/m3)	

Amer Conf of Gov. Indust. Hyg. : American Conference of Governmental Industrial Hygienists
American Indust. Hygiene Assoc : American Industrial Hygiene Association
Chemical Manufacturer Rec Guid : Chemical Manufacturer's Recommended Guidelines
US Dept of Labor - 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.

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

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 - 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
Specific Physical Form:	Liquid
Odor, Color, Grade:	Slight oily odor; White color
Odor threshold	*No Data Available*
pH	8
Melting point	*Not Applicable*
Boiling Point	>=95 ºC
Flash Point	65 ºC [*Test Method:* Closed Cup]
Evaporation rate	*No Data Available*
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	1 % volume
Flammable Limits(UEL)	7.5 % volume
Vapor Pressure	22 mmHg [@ 20 ºC]
Vapor Density	*No Data Available*
Density	1.43 g/ml
Specific Gravity	1.43 g/cm3 [*Ref Std:* WATER=1]
Solubility in Water	Moderate
Solubility- non-water	*No Data Available*

Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	>=415 ºC
Decomposition temperature	*No Data Available*
Viscosity	*No Data Available*
Volatile Organic Compounds	103 g/l [*Test Method:* Estimated] [*Details:* EU Definition (Part A and B mix)]
Volatile Organic Compounds	94 g/l [*Test Method:* Estimated] [*Details:* EU Definition (Part A and B mix thinned 10%)]
Percent volatile	43.5 % weight

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
None known.

10.5. Incompatible materials
Accelerators
Alcohols
Amines
Strong acids
Strong bases
Strong oxidizing agents

10.6. Hazardous decomposition products

Substance	**Condition**
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

Skin Contact:
Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye Contact:
Vapors released during curing may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

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

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

Ingredient	C.A.S. No.	Class Description	Regulation
CARBON BLACK	1333-86-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
QUARTZ SILICA	14808-60-7	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
SILICA, CRYS AIRRESP	14808-60-7	Known human carcinogen	National Toxicology Program Carcinogens
TITANIUM DIOXIDE	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

Toxicological Data

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		Data not available or insufficient for classification; calculated ATE > 5,000 mg/kg
Overall product	Inhalation-Vapor(4 hr)		Data not available or insufficient for classification; calculated ATE > 50 mg/l
Overall product	Ingestion		Data not available or insufficient for classification; calculated ATE > 5,000 mg/kg
TITANIUM DIOXIDE	Dermal	Rabbit	LD50 > 10,000 mg/kg
TITANIUM DIOXIDE	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
TITANIUM DIOXIDE	Ingestion	Rat	LD50 > 10,000 mg/kg
IRON OXIDE (FE2O3)	Dermal	Not available	LD50 3,100 mg/kg
IRON OXIDE (FE2O3)	Ingestion	Not available	LD50 3,700 mg/kg
IRON HYDROXIDE OXIDE	Dermal		LD50 estimated to be > 5,000 mg/kg
IRON HYDROXIDE OXIDE	Ingestion	Rat	LD50 > 10,000 mg/kg
CARBON BLACK	Dermal	Rabbit	LD50 > 3,000 mg/kg
CARBON BLACK	Ingestion	Rat	LD50 > 8,000 mg/kg
1,2-PROPYLENE GLYCOL 1-MONOBUTYL ETHER	Dermal	Rat	LD50 > 2,000 mg/kg
1,2-PROPYLENE GLYCOL 1-MONOBUTYL ETHER	Inhalation-Vapor	Rat	LC50 > 8.5 mg/l
1,2-PROPYLENE GLYCOL 1-MONOBUTYL ETHER	Ingestion	Rat	LD50 2,124 mg/kg
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Dermal	Rabbit	LD50 > 2,000 mg/kg
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Inhalation-Vapor (4 hours)	Rat	LC50 > 5.2 mg/l
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Ingestion	Rat	LD50 > 5,000 mg/kg
TRIETHYLAMINE	Dermal	Rabbit	LD50 415 mg/kg
TRIETHYLAMINE	Inhalation-Vapor (4 hours)	Rat	LC50 7.2 mg/l
TRIETHYLAMINE	Ingestion	Rat	LD50 460 mg/kg

PROPYLENE GLYCOL	Dermal	Rabbit	LD50 20,800 mg/kg
PROPYLENE GLYCOL	Ingestion	Rat	LD50 22,000 mg/kg
2,4,7,9-TETRAMETHYL-5-DECYNE-4,7-DIOL	Dermal	Rat	LD50 > 2,000 mg/kg
2,4,7,9-TETRAMETHYL-5-DECYNE-4,7-DIOL	Ingestion	Rat	LD50 > 500 mg/kg
N,N-DIMETHYLETHANOLAMINE	Dermal	Rabbit	LD50 1,220 mg/kg
N,N-DIMETHYLETHANOLAMINE	Inhalation-Vapor (4 hours)	Rat	LC50 6 mg/l
N,N-DIMETHYLETHANOLAMINE	Ingestion	Rat	LD50 1,803 mg/kg
7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-			Data not available or insufficient for classification
QUARTZ SILICA	Dermal		LD50 estimated to be > 5,000 mg/kg
QUARTZ SILICA	Ingestion		LD50 estimated to be > 5,000 mg/kg
1,2-BENZISOTHIAZOLIN-3-ONE			Data not available or insufficient for classification
2-BROMO-2-NITRO-1,3-PROPANEDIOL			Data not available or insufficient for classification
2-METHYL-4-ISOTHIAZOLINE-3-ONE			Data not available or insufficient for classification
2-OCTYL-3(2H)-ISOTHIAZOLONE			Data not available or insufficient for classification
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone			Data not available or insufficient for classification

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
TITANIUM DIOXIDE	Rabbit	No significant irritation
IRON OXIDE (FE2O3)	Rabbit	No significant irritation
IRON HYDROXIDE OXIDE		Data not available or insufficient for classification
CARBON BLACK	Rabbit	No significant irritation
1,2-PROPYLENE GLYCOL 1-MONOBUTYL ETHER		Data not available or insufficient for classification
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Rabbit	Irritant
TRIETHYLAMINE		Data not available or insufficient for classification
PROPYLENE GLYCOL	Rabbit	No significant irritation
2,4,7,9-TETRAMETHYL-5-DECYNE-4,7-DIOL	Rabbit	No significant irritation
N,N-DIMETHYLETHANOLAMINE	Rabbit	Corrosive
7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-		Data not available or insufficient for classification
QUARTZ SILICA		No significant irritation
1,2-BENZISOTHIAZOLIN-3-ONE		Data not available or insufficient for classification
2-BROMO-2-NITRO-1,3-PROPANEDIOL		Data not available or insufficient for classification
2-METHYL-4-ISOTHIAZOLINE-3-ONE		Data not available or insufficient for classification
2-OCTYL-3(2H)-ISOTHIAZOLONE		Data not available or insufficient for classification
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone		Data not available or insufficient for classification

Serious Eye Damage/Irritation

Name	Species	Value
TITANIUM DIOXIDE	Rabbit	No significant irritation
IRON OXIDE (FE2O3)	Rabbit	No significant irritation
IRON HYDROXIDE OXIDE		Data not available or insufficient for classification
CARBON BLACK	Rabbit	No significant irritation
1,2-PROPYLENE GLYCOL 1-MONOBUTYL ETHER		Data not available or insufficient for classification
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Rabbit	Mild irritant
TRIETHYLAMINE		Data not available or insufficient for classification
PROPYLENE GLYCOL	Rabbit	No significant irritation
2,4,7,9-TETRAMETHYL-5-DECYNE-4,7-DIOL	Rabbit	Corrosive
N,N-DIMETHYLETHANOLAMINE	official classification	Corrosive
7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-		Data not available or insufficient for classification
QUARTZ SILICA		Data not available or insufficient for classification
1,2-BENZISOTHIAZOLIN-3-ONE		Data not available or insufficient for classification
2-BROMO-2-NITRO-1,3-PROPANEDIOL		Data not available or insufficient for classification
2-METHYL-4-ISOTHIAZOLINE-3-ONE		Data not available or insufficient for classification
2-OCTYL-3(2H)-ISOTHIAZOLONE		Data not available or insufficient for classification
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone		Data not available or insufficient for classification

Skin Sensitization

Name	Species	Value
TITANIUM DIOXIDE	Human and animal	Not sensitizing
IRON OXIDE (FE2O3)	Human	Some positive data exist, but the data are not sufficient for classification
IRON HYDROXIDE OXIDE		Data not available or insufficient for classification
CARBON BLACK		Data not available or insufficient for classification
1,2-PROPYLENE GLYCOL 1-MONOBUTYL ETHER		Data not available or insufficient for classification
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Guinea pig	Not sensitizing
TRIETHYLAMINE		Data not available or insufficient for classification
PROPYLENE GLYCOL	Human	Some positive data exist, but the data are not sufficient for classification
2,4,7,9-TETRAMETHYL-5-DECYNE-4,7-DIOL	Mouse	Sensitizing
N,N-DIMETHYLETHANOLAMINE	Mouse	Some positive data exist, but the data are not sufficient for classification
7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-		Data not available or insufficient for classification
QUARTZ SILICA		Data not available or insufficient for classification
1,2-BENZISOTHIAZOLIN-3-ONE		Data not available or insufficient for classification
2-BROMO-2-NITRO-1,3-PROPANEDIOL		Data not available or insufficient for classification
2-METHYL-4-ISOTHIAZOLINE-3-ONE		Data not available or insufficient for classification
2-OCTYL-3(2H)-ISOTHIAZOLONE		Data not available or insufficient for classification
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone		Data not available or insufficient for classification

Respiratory Sensitization

Name	Species	Value
TITANIUM DIOXIDE		Data not available or insufficient for classification
IRON OXIDE (FE2O3)		Data not available or insufficient for classification
IRON HYDROXIDE OXIDE		Data not available or insufficient for classification
CARBON BLACK		Data not available or insufficient for classification
1,2-PROPYLENE GLYCOL 1-MONOBUTYL ETHER		Data not available or insufficient for classification
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)		Data not available or insufficient for classification
TRIETHYLAMINE		Data not available or insufficient for classification
PROPYLENE GLYCOL		Data not available or insufficient for classification
2,4,7,9-TETRAMETHYL-5-DECYNE-4,7-DIOL		Data not available or insufficient for classification
N,N-DIMETHYLETHANOLAMINE		Data not available or insufficient for classification
7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-		Data not available or insufficient for classification
QUARTZ SILICA		Data not available or insufficient for classification
1,2-BENZISOTHIAZOLIN-3-ONE		Data not available or insufficient for classification
2-BROMO-2-NITRO-1,3-PROPANEDIOL		Data not available or insufficient for classification
2-METHYL-4-ISOTHIAZOLINE-3-ONE		Data not available or insufficient for classification
2-OCTYL-3(2H)-ISOTHIAZOLONE		Data not available or insufficient for classification
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone		Data not available or insufficient for classification

Germ Cell Mutagenicity

Name	Route	Value
TITANIUM DIOXIDE	In Vitro	Not mutagenic
TITANIUM DIOXIDE	In vivo	Not mutagenic
IRON OXIDE (FE2O3)	In Vitro	Not mutagenic
IRON HYDROXIDE OXIDE		Data not available or insufficient for classification
CARBON BLACK	In Vitro	Not mutagenic
CARBON BLACK	In vivo	Some positive data exist, but the data are not sufficient for classification
1,2-PROPYLENE GLYCOL 1-MONOBUTYL ETHER		Data not available or insufficient for classification
TRIETHYLAMINE		Data not available or insufficient for classification
PROPYLENE GLYCOL	In Vitro	Not mutagenic
PROPYLENE GLYCOL	In vivo	Not mutagenic
2,4,7,9-TETRAMETHYL-5-DECYNE-4,7-DIOL		Data not available or insufficient for classification
N,N-DIMETHYLETHANOLAMINE	In Vitro	Not mutagenic
N,N-DIMETHYLETHANOLAMINE	In vivo	Not mutagenic
7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-		Data not available or insufficient for classification

QUARTZ SILICA	In Vitro	Some positive data exist, but the data are not sufficient for classification
QUARTZ SILICA	In vivo	Some positive data exist, but the data are not sufficient for classification
1,2-BENZISOTHIAZOLIN-3-ONE		Data not available or insufficient for classification
2-BROMO-2-NITRO-1,3-PROPANEDIOL		Data not available or insufficient for classification
2-METHYL-4-ISOTHIAZOLINE-3-ONE		Data not available or insufficient for classification
2-OCTYL-3(2H)-ISOTHIAZOLONE		Data not available or insufficient for classification
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone		Data not available or insufficient for classification

Carcinogenicity

Name	Route	Species	Value
TITANIUM DIOXIDE	Ingestion	Multiple animal species	Not carcinogenic
TITANIUM DIOXIDE	Inhalation	Rat	Carcinogenic
IRON OXIDE (FE2O3)	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification
IRON HYDROXIDE OXIDE			Data not available or insufficient for classification
CARBON BLACK	Dermal	Mouse	Not carcinogenic
CARBON BLACK	Ingestion	Mouse	Not carcinogenic
CARBON BLACK	Inhalation	Rat	Carcinogenic
1,2-PROPYLENE GLYCOL 1-MONOBUTYL ETHER			Data not available or insufficient for classification
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification
TRIETHYLAMINE			Data not available or insufficient for classification
PROPYLENE GLYCOL	Dermal	Mouse	Not carcinogenic
PROPYLENE GLYCOL	Ingestion	Multiple animal species	Not carcinogenic
2,4,7,9-TETRAMETHYL-5-DECYNE-4,7-DIOL			Data not available or insufficient for classification
N,N-DIMETHYLETHANOLAMINE			Data not available or insufficient for classification
7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-			Data not available or insufficient for classification
QUARTZ SILICA	Inhalation	Human and animal	Carcinogenic
1,2-BENZISOTHIAZOLIN-3-ONE			Data not available or insufficient for classification
2-BROMO-2-NITRO-1,3-PROPANEDIOL			Data not available or insufficient for classification
2-METHYL-4-ISOTHIAZOLINE-3-ONE			Data not available or insufficient for classification
2-OCTYL-3(2H)-ISOTHIAZOLONE			Data not available or insufficient for classification
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone			Data not available or insufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
TITANIUM DIOXIDE		Data not available or insufficient for classification			
IRON OXIDE (FE2O3)		Data not available or insufficient for classification			
IRON HYDROXIDE OXIDE		Data not available or insufficient for classification			
CARBON BLACK		Data not available or insufficient for classification			
1,2-PROPYLENE GLYCOL 1-MONOBUTYL ETHER		Data not available or insufficient for classification			
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Inhalation	Not toxic to female reproduction	Rat	NOAEL 1,500 ppm	2 generation
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Inhalation	Not toxic to male reproduction	Rat	NOAEL 1,500 ppm	2 generation
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Inhalation	Some positive developmental data exist, but the data are not sufficient for	Rat	NOAEL 500 ppm	2 generation

		classification			
TRIETHYLAMINE		Data not available or insufficient for classification			
PROPYLENE GLYCOL	Ingestion	Not toxic to female reproduction	Mouse	NOAEL 10,100 mg/kg/day	2 generation
PROPYLENE GLYCOL	Ingestion	Not toxic to male reproduction	Mouse	NOAEL 10,100 mg/kg/day	2 generation
PROPYLENE GLYCOL	Ingestion	Not toxic to development	Multiple animal species	NOAEL 1,230 mg/kg/day	during organogenesis
2,4,7,9-TETRAMETHYL-5-DECYNE-4,7-DIOL		Data not available or insufficient for classification			
N,N-DIMETHYLETHANOLAMINE	Inhalation	Not toxic to development	Rat	NOAEL 0.3 mg/l	during gestation
N,N-DIMETHYLETHANOLAMINE	Ingestion	Some positive female reproductive data exist, but the data are not sufficient for classification	Rat	LOAEL 300 mg/kg	during gestation
N,N-DIMETHYLETHANOLAMINE	Inhalation	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 2.13 mg/l	9 days
N,N-DIMETHYLETHANOLAMINE	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	LOAEL 300 mg/kg/day	during gestation
7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-		Data not available or insufficient for classification			
QUARTZ SILICA		Data not available or insufficient for classification			
1,2-BENZISOTHIAZOLIN-3-ONE		Data not available or insufficient for classification			
2-BROMO-2-NITRO-1,3-PROPANEDIOL		Data not available or insufficient for classification			
2-METHYL-4-ISOTHIAZOLINE-3-ONE		Data not available or insufficient for classification			
2-OCTYL-3(2H)-ISOTHIAZOLONE		Data not available or insufficient for classification			
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone		Data not available or insufficient for classification			

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
IRON HYDROXIDE OXIDE			Data not available or insufficient for classification			
1,2-PROPYLENE GLYCOL 1-MONOBUTYL ETHER			Data not available or insufficient for classification			
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL Not available	
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Ingestion	central nervous system depression	May cause drowsiness or dizziness		NOAEL Not available	
TRIETHYLAMINE			Data not available or insufficient for classification			
PROPYLENE GLYCOL	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
2,4,7,9-TETRAMETHYL-5-DECYNE-4,7-DIOL			Data not available or insufficient for classification			
N,N-	Inhalation	respiratory irritation	May cause respiratory irritation	Rat	NOAEL 0.09	90 days

DIMETHYLETHANOLAMINE					mg/l	
7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-			Data not available or insufficient for classification			
1,2-BENZISOTHIAZOLIN-3-ONE			Data not available or insufficient for classification			
2-BROMO-2-NITRO-1,3-PROPANEDIOL			Data not available or insufficient for classification			
2-METHYL-4-ISOTHIAZOLINE-3-ONE			Data not available or insufficient for classification			
2-OCTYL-3(2H)-ISOTHIAZOLONE			Data not available or insufficient for classification			
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone			Data not available or insufficient for classification			

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
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 (FE2O3)	Inhalation	pulmonary fibrosis | pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
IRON HYDROXIDE OXIDE			Data not available or insufficient for classification			
CARBON BLACK	Inhalation	pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
1,2-PROPYLENE GLYCOL 1-MONOBUTYL ETHER			Data not available or insufficient for classification			
TRIETHYLAMINE			Data not available or insufficient for classification			
PROPYLENE GLYCOL	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 1,370 mg/kg/day	117 days
PROPYLENE GLYCOL	Ingestion	kidney and/or bladder	All data are negative	Dog	NOAEL 5,000 mg/kg/day	104 weeks
2,4,7,9-TETRAMETHYL-5-DECYNE-4,7-DIOL			Data not available or insufficient for classification			
N,N-DIMETHYLETHANOLAMINE	Inhalation	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 2.13 mg/l	9 days
N,N-DIMETHYLETHANOLAMINE	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.37 mg/l	9 days
7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-			Data not available or insufficient for classification			
QUARTZ SILICA	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
1,2-BENZISOTHIAZOLIN-3-ONE			Data not available or insufficient for classification			
2-BROMO-2-NITRO-1,3-PROPANEDIOL			Data not available or insufficient for classification			

2-METHYL-4-ISOTHIAZOLINE-3-ONE			Data not available or insufficient for classification			
2-OCTYL-3(2H)-ISOTHIAZOLONE			Data not available or insufficient for classification			
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone			Data not available or insufficient for classification			

Aspiration Hazard

Name	Value
TITANIUM DIOXIDE	Not an aspiration hazard
IRON OXIDE (FE2O3)	Not an aspiration hazard
IRON HYDROXIDE OXIDE	Not an aspiration hazard
CARBON BLACK	Not an aspiration hazard
1,2-PROPYLENE GLYCOL 1-MONOBUTYL ETHER	Not an aspiration hazard
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	Aspiration hazard
TRIETHYLAMINE	Not an aspiration hazard
PROPYLENE GLYCOL	Not an aspiration hazard
2,4,7,9-TETRAMETHYL-5-DECYNE-4,7-DIOL	Not an aspiration hazard
N,N-DIMETHYLETHANOLAMINE	Not an aspiration hazard
7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-	Not an aspiration hazard
QUARTZ SILICA	Not an aspiration hazard
1,2-BENZISOTHIAZOLIN-3-ONE	Not an aspiration hazard
2-BROMO-2-NITRO-1,3-PROPANEDIOL	Not an aspiration hazard
2-METHYL-4-ISOTHIAZOLINE-3-ONE	Not an aspiration hazard
2-OCTYL-3(2H)-ISOTHIAZOLONE	Not an aspiration hazard
3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	Not an aspiration hazard

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

SECTION 12: Ecological information

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. Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. Proper destruction may require the use of additional fuel during incineration processes. If no other disposal options are available, waste product that has been completely cured or polymerized may be placed in a landfill properly designed for industrial waste. 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): D018 (Benzene)

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

This material contains a chemical which requires export notification under TSCA Section 12[b]:

Ingredient (Category if applicable)	C.A.S. No	Regulation	Status
2-METHYL-4-ISOTHIAZOLINE-3-ONE	2682-20-4	Toxic Substances Control Act (TSCA) 5 SNUR or Consent Order Chemicals	Proposed

This material contains a chemical subject to a proposed EPA Significant New Use Rule (TSCA Section 5)

Ingredient (Category if applicable)	C.A.S. No	Reference
2-METHYL-4-ISOTHIAZOLINE-3-ONE	2682-20-4	62 FR 34421

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information.

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:** 2 **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:	28-8795-8	**Version Number:**	1.00
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