Safety Data Sheet

Document Group:	24-9673-5	**Version Number:**	3.00
Issue Date:	14/11/2019	**Supercedes Date:**	25/11/2014

This Safety Data Sheet has been prepared in accordance with the Malaysia Occupational Safety and Health (Chemical Classification, Labelling and Safety Data Sheets) Regulations 2013.

IDENTIFICATION

1.1. Product identifier
3M™ Platinum 01121, 01271, 01171, 31138, 30171

Product Identification Numbers
41-0003-6790-8 60-4550-5841-6 60-4550-6995-9 70-0080-0089-8 70-0080-0100-3
70-0080-0106-0

1.2. Recommended use and restrictions on use

Recommended use
Automotive

1.3. Supplier's details

ADDRESS:	3M Malaysia Sdn. Bhd., Level 8, Block F, Oasis Square, No.2, Jalan PJU 1A/7A, Ara Damansara 47301 Petaling, Jaya, Selangor
Telephone:	03-7884 2888
E Mail:	3mmyehsr@mmm.com
Website:	www.3M.com.my

1.4. Emergency telephone number
+60 03-7884 2888

This product is a kit or a multipart product which consists of multiple, independently packaged components. An SDS for each of these components is included. Please do not separate the component SDSs from this cover page. The document numbers of the SDSs for components of this product are:

24-8104-2, 29-5993-0

TRANSPORT INFORMATION

Marine Transport (IMDG): UN Number: UN3269
Proper Shipping Name: POLYESTER RESIN KIT
Hazard Class/Division: 3
Packing group: III

Limited Quantity: Yes
Marine Pollutant: Yes
Air Transport (IATA): UN Number: UN3269
Proper Shipping Name: POLYESTER RESIN KIT
Packing group: III
Marine Pollutant: Yes
Transportation classifications are provided as a customer service. As for shipping, YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M's transportation classifications are based on product formulation, packaging, 3M policies and 3M's understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling or marking requirements. The above information is only for reference. If you are shipping by air or ocean, YOU are advised to check & meet applicable regulatory requirements.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.
3M Malaysia SDSs are available at www.3M.com.my

Safety Data Sheet

Document Group:	29-5993-0	**Version Number:**	5.00
Issue Date:	23/03/2022	**Supercedes Date:**	19/10/2018

This Safety Data Sheet has been prepared in accordance with the Malaysia Occupational Safety and Health (Chemical Classification, Labelling and Safety Data Sheets) Regulations 2013.

SECTION 1: Identification

1.1. Product identifier
3M™ Cream Hardener (Red, White & Blue)

Product Identification Numbers
60-4550-6617-9 60-4550-6830-8 60-4550-6981-9 60-4550-6982-7 60-4550-8123-6
60-4551-0388-1

1.2. Recommended use and restrictions on use

Recommended use
Automotive, hardener for body fillers & glazes

For Industrial or Professional use only

1.3. Supplier's details
ADDRESS: 3M Malaysia Sdn. Bhd., Level 8, Block F, Oasis Square, No.2, Jalan PJU 1A/7A, Ara Damansara 47301 Petaling, Jaya, Selangor
Telephone: 03-7884 2888
E Mail: 3mmyehsr@mmm.com
Website: www.3M.com.my

1.4. Emergency telephone number
+60 03-7884 2888

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
Organic Peroxide: Type E&F.
Serious Eye Damage/Irritation: Category 2.
Skin Sensitizer: Category 1.
Specific Target Organ Toxicity (single exposure): Category 2.
Acute Aquatic Toxicity: Category 1.
Chronic Aquatic Toxicity: Category 1.

2.2. Label elements
Signal word

Warning

Symbols
Flame |Exclamation mark |Health Hazard |Environment |

Pictograms

Hazard Statements:

H242	Heating may cause a fire.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H371	May cause damage to organs: cardiovascular system | kidney/urinary tract | nervous system | respiratory system.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements
General:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P234	Keep only in original packaging.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P273	Avoid release to the environment.
P280B	Wear protective gloves and eye/face protection.

Response:

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

Storage:

P411 + P235	Store at temperatures not exceeding . Keep cool.

Disposal:

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

2.3. Other hazards
None known

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Benzoyl Peroxide	94-36-0	30 - 60
Benzoic Acid, C9-11-Branched Alkyl Esters	131298-44-7	10 - 30
Water	7732-18-5	10 - 30
Ethylene Glycol	107-21-1	<= 10
Zinc Stearate	557-05-1	3 - 7
Calcium Sulfate	7778-18-9	1 - 5
Iron Oxide (FE2O3)	1309-37-1	1 - 5
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	9038-95-3	1 - 5
Ferric Ammonium Ferrocyanide	25869-00-5	0 - 1
Ferric Ferrocyanide	14038-43-8	0 - 1

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

Allergic skin reaction (redness, swelling, blistering, and itching). Target organ effects. See Section 11 for additional details.

4.3. Indication of any immediate medical attention and special treatment required
This product contains ethylene glycol. If there is reasonable suspicion of ethylene glycol poisoning, intravenous (IV) administration with either fomepizole (preferred) or ethanol (if fomepizole is unavailable) should be considered as part of the medical management.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture
Closed containers exposed to heat from fire may build pressure and explode. Part of the oxygen for combustion is supplied by the peroxide itself.

5.3. Special protective actions for fire-fighters
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. 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
Collect as much of the spilled material as possible using non-sparking tools. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Do not use in a confined area with minimal air exchange. Keep out of reach of children. 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.

7.2. Conditions for safe storage including any incompatibilities
Keep container tightly closed. Protect from sunlight. Store away from heat. Store at temperatures not exceeding 32C/90F. Keep cool. Keep only in original container. Store away from other materials. Keep/store away from clothing and other combustible materials.

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
Ethylene Glycol	107-21-1	ACGIH	TWA(Vapor fraction):25 ppm;STEL(Vapor fraction):50 ppm;STEL(Inhalable aerosol):10 mg/m3	A4: Not class. as human carcin
Ethylene Glycol	107-21-1	Malaysia OELs	CEIL(as aerosol):100 mg/m3(39.4 ppm)	
Iron Oxide (FE2O3)	1309-37-1	ACGIH	TWA(respirable fraction):5 mg/m3	A4: Not class. as human carcin
Iron Oxide (FE2O3)	1309-37-1	Malaysia OELs	TWA (proposed)(as Fe, dust and fume)(8 hours):5 mg/m3(2 ppm)	
DUST, INERT OR NUISANCE	557-05-1	Malaysia OELs	TWA (proposed)(respirable particles)(8 hours):3 mg/m3;TWA (proposed)(Inhalable particulate)(8 hours):10 mg/m3	
Calcium Sulfate	7778-18-9	ACGIH	TWA(inhalable fraction):10 mg/m3	

Calcium Sulfate	7778-18-9	Malaysia OELs	TWA (proposed)(8 hours):10 mg/m3	
Benzoyl Peroxide	94-36-0	ACGIH	TWA:5 mg/m3	A4: Not class. as human carcin
Benzoyl Peroxide	94-36-0	Malaysia OELs	TWA(8 hours):5 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists
CMRG : Chemical Manufacturer's Recommended Guidelines
Malaysia OELs : Malaysia. Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Provide ventilation adequate to maintain dust concentration below minimum explosive concentrations. 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. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.
Gloves made from the following material(s) are recommended: Polymer laminate

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

Physical state	Solid
Specific Physical Form:	Paste
Color	Red
Odor	Slight Ester

Odor threshold	*No Data Available*
pH	*No Data Available*
Melting point/Freezing point	*No Data Available*
Boiling point/Initial boiling point/Boiling range	*No Data Available*
Flash Point	111 ºC [*Test Method:*Estimated]
Evaporation rate	*No Data Available*
Flammability (solid, gas)	Organic Peroxide: Type E.
Flammable Limits(LEL)	*Not Applicable*
Flammable Limits(UEL)	*Not Applicable*
Vapor Pressure	*Not Applicable*
Vapor Density and/or Relative Vapor Density	*Not Applicable*
Density	1.2 g/cm3
Relative Density	1.2 [@ 25 ºC] [*Ref Std:*WATER=1]
Water solubility	Negligible
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*No Data Available*
Decomposition temperature	*No Data Available*
Viscosity/Kinematic Viscosity	*No Data Available*
Volatile Organic Compounds	0 - 90 g/l [*Test Method:*calculated SCAQMD rule 443.1]
Volatile Organic Compounds	0 % weight [*Test Method:*calculated per CARB title 2]
Percent volatile	21 - 28.5 %
VOC Less H2O & Exempt Solvents	0 - 121 g/l [*Test Method:*calculated SCAQMD rule 443.1]
Molecular weight	*Not Applicable*

Nanoparticles
This material does not contain nanoparticles.

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. Stable unless exposed to heat, flames and drying conditions.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Heat

10.5. Incompatible materials
Accelerators

10.6. Hazardous decomposition products

Substance	Condition
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Toxic Vapor, Gas, Particulate	Not Specified

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:
May be harmful in contact with skin.
Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

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

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

May cause additional health effects (see below).

Additional Health Effects:

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

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

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

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

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >2,000 - ≤5,000 mg/kg
Overall product	Inhalation-Dust/Mist(4 hr)		No data available; calculated ATE >12.5 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg

Benzoyl Peroxide	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Benzoyl Peroxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 24.3 mg/l
Benzoyl Peroxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Benzoic Acid, C9-11-Branched Alkyl Esters	Dermal	Rabbit	LD50 > 2,000 mg/kg
Benzoic Acid, C9-11-Branched Alkyl Esters	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5 mg/l
Benzoic Acid, C9-11-Branched Alkyl Esters	Ingestion	Rat	LD50 > 5,000 mg/kg
Calcium Sulfate	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Calcium Sulfate	Ingestion	Rat	LD50 > 5,000 mg/kg
Zinc Stearate	Dermal	Rabbit	LD50 > 2,000 mg/kg
Zinc Stearate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 50 mg/l
Zinc Stearate	Ingestion	Rat	LD50 > 5,000 mg/kg
Ethylene Glycol	Ingestion	Human	LD50 1,600 mg/kg
Ethylene Glycol	Inhalation-Dust/Mist (4 hours)	Other	LC50 estimated to be 5 - 12.5 mg/l
Ethylene Glycol	Dermal	Rabbit	9,530 mg/kg
Iron Oxide (FE2O3)	Dermal	Not available	LD50 3,100 mg/kg
Iron Oxide (FE2O3)	Ingestion	Not available	LD50 3,700 mg/kg
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Dermal	Rabbit	LD50 > 16,960 mg/kg
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5 mg/l
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Rat	LD50 4,240 mg/kg
Ferric Ammonium Ferrocyanide	Dermal		LD50 estimated to be > 5,000 mg/kg
Ferric Ferrocyanide	Dermal		LD50 estimated to be > 5,000 mg/kg
Ferric Ammonium Ferrocyanide	Ingestion	Rat	LD50 > 5,110 mg/kg
Ferric Ferrocyanide	Ingestion	Rat	LD50 > 8,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Benzoyl Peroxide	Rabbit	Minimal irritation
Zinc Stearate	Rabbit	No significant irritation
Ethylene Glycol	Rabbit	Minimal irritation
Iron Oxide (FE2O3)	Rabbit	No significant irritation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Rabbit	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
Benzoyl Peroxide	Rabbit	Severe irritant
Zinc Stearate	Rabbit	No significant irritation
Ethylene Glycol	Rabbit	Mild irritant
Iron Oxide (FE2O3)	Rabbit	No significant irritation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Rabbit	No significant irritation

Sensitization:

Skin Sensitization

Name	Species	Value

Benzoyl Peroxide	Guinea pig	Sensitizing
Ethylene Glycol	Human	Not classified
Iron Oxide (FE2O3)	Human	Not classified

Respiratory Sensitization

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

Germ Cell Mutagenicity

Name	Route	Value
Benzoyl Peroxide	In Vitro	Not mutagenic
Benzoyl Peroxide	In vivo	Not mutagenic
Ethylene Glycol	In Vitro	Not mutagenic
Ethylene Glycol	In vivo	Not mutagenic
Iron Oxide (FE2O3)	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Benzoyl Peroxide	Ingestion	Multiple animal species	Not carcinogenic
Benzoyl Peroxide	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Ethylene Glycol	Ingestion	Multiple animal species	Not carcinogenic
Iron Oxide (FE2O3)	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Rat	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Benzoyl Peroxide	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Benzoyl Peroxide	Ingestion	Not classified for male reproduction	Rat	NOAEL 500 mg/kg/day	premating & during gestation
Benzoyl Peroxide	Ingestion	Not classified for development	Rat	NOAEL 500 mg/kg/day	premating & during gestation
Ethylene Glycol	Dermal	Not classified for development	Mouse	NOAEL 3,549 mg/kg/day	during organogenesis
Ethylene Glycol	Ingestion	Not classified for development	Mouse	LOAEL 750 mg/kg/day	during organogenesis
Ethylene Glycol	Inhalation	Not classified for development	Mouse	NOAEL 1,000 mg/kg/day	during organogenesis
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	Not classified for male reproduction	Rat	NOAEL 1 mg/l	2 weeks

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Ethylene Glycol	Ingestion	heart | nervous system | kidney	Causes damage to organs	Human	NOAEL Not available	poisoning and/or abuse

		and/or bladder | respiratory system				
Ethylene Glycol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
Ethylene Glycol	Ingestion	liver	Not classified	Human	NOAEL Not available	poisoning and/or abuse
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	nervous system	Not classified	Rat	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Ethylene Glycol	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 200 mg/kg/day	2 years
Ethylene Glycol	Ingestion	vascular system	Not classified	Rat	NOAEL 200 mg/kg/day	2 years
Ethylene Glycol	Ingestion	heart | hematopoietic system | liver | immune system | muscles	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
Ethylene Glycol	Ingestion	respiratory system	Not classified	Mouse	NOAEL 12,000 mg/kg/day	2 years
Ethylene Glycol	Ingestion	skin | endocrine system | bone, teeth, nails, and/or hair | nervous system | eyes	Not classified	Multiple animal species	NOAEL 1,000 mg/kg/day	2 years
Iron Oxide (FE2O3)	Inhalation	pulmonary fibrosis | pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	endocrine system | hematopoietic system | liver | nervous system	Not classified	Rat	NOAEL 1 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 0.005 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	respiratory system	Not classified	Rat	LOAEL 0.001 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	heart	Not classified	Rat	NOAEL 0.5 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 145 mg/kg/day	90 days
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 500 mg/kg/day	2 years
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	heart | endocrine system | respiratory system	Not classified	Rat	NOAEL 3,770 mg/kg/day	90 days

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

The information below may not be consistent with the material classification in Section 2 if specific ingredient

classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labeling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:
GHS Acute 1: Very toxic to aquatic life.

Chronic aquatic hazard:
GHS Chronic 1: Very toxic to aquatic life with long lasting effects.

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result
Benzoyl Peroxide	94-36-0	Green Algae	Experimental	72 hours	EC50	0.071 mg/l
Benzoyl Peroxide	94-36-0	Rainbow Trout	Experimental	96 hours	LC50	0.06 mg/l
Benzoyl Peroxide	94-36-0	Water flea	Experimental	48 hours	EC50	0.11 mg/l
Benzoyl Peroxide	94-36-0	Green Algae	Experimental	72 hours	NOEC	0.02 mg/l
Benzoyl Peroxide	94-36-0	Water flea	Experimental	21 days	EC10	0.001 mg/l
Benzoyl Peroxide	94-36-0	Activated sludge	Experimental	30 minutes	EC50	35 mg/l
Benzoyl Peroxide	94-36-0	Redworm	Experimental	14 days	LC50	>1,000 mg/kg (Dry Weight)
Benzoyl Peroxide	94-36-0	Soil microbes	Experimental	28 days	EC50	2,300 mg/kg (Dry Weight)
Benzoic Acid, C9-11-Branched Alkyl Esters	131298-44-7	Activated sludge	Experimental	3 hours	EC50	>100 mg/l
Benzoic Acid, C9-11-Branched Alkyl Esters	131298-44-7		Data not available or insufficient for classification			N/A
Ethylene Glycol	107-21-1	Bacteria	Experimental	16 hours	EC50	10,000 mg/l
Ethylene Glycol	107-21-1	Fathead Minnow	Experimental	96 hours	LC50	8,050 mg/l
Ethylene Glycol	107-21-1	Green algae	Experimental	72 hours	EC50	>1,000 mg/l
Ethylene Glycol	107-21-1	Water flea	Experimental	48 hours	EC50	>1,100 mg/l
Ethylene Glycol	107-21-1	Green Algae	Experimental	72 hours	NOEC	1,000 mg/l
Ethylene Glycol	107-21-1	Water flea	Experimental	21 days	NOEC	100 mg/l
Zinc Stearate	557-05-1	Water flea	Experimental	48 hours	EC50	>100 mg/l
Zinc Stearate	557-05-1	Zebra Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l

Calcium Sulfate	7778-18-9	Activated sludge	Estimated	3 hours	NOEC	1,000 mg/l
Calcium Sulfate	7778-18-9	Algae or other aquatic plants	Experimental	96 hours	EC50	3,200 mg/l
Calcium Sulfate	7778-18-9	Bluegill	Experimental	96 hours	LC50	>2,980 mg/l
Calcium Sulfate	7778-18-9	Water flea	Experimental	48 hours	LC50	>1,970 mg/l
Calcium Sulfate	7778-18-9	Water flea	Estimated	21 days	NOEC	1,270 mg/l
Iron Oxide (FE2O3)	1309-37-1	Golden Orfe	Experimental	48 hours	LC50	>1,000 mg/l
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	9038-95-3	Inland Silverside	Analogous Compound	96 hours	LC50	650 mg/l
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	9038-95-3	Activated sludge	Experimental	16 hours	IC50	32,000 mg/l
Ferric Ammonium Ferrocyanide	25869-00-5	Water flea	Endpoint not reached	24 hours	EC50	>100 mg/l
Ferric Ammonium Ferrocyanide	25869-00-5	Activated sludge	Experimental	3 hours	NOEC	100 mg/l
Ferric Ammonium Ferrocyanide	25869-00-5	Common Carp	Experimental	96 hours	LC50	>100 mg/l
Ferric Ammonium Ferrocyanide	25869-00-5	Green Algae	Experimental	72 hours	EC50	9.7 mg/l
Ferric Ammonium Ferrocyanide	25869-00-5	Green Algae	Experimental	72 hours	NOEC	8 mg/l
Ferric Ammonium Ferrocyanide	25869-00-5	Water flea	Experimental	21 days	EC10	0.168 mg/l
Ferric Ferrocyanide	14038-43-8	Golden Orfe	Estimated	96 hours	LC50	>100 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Benzoyl Peroxide	94-36-0	Experimental Hydrolysis		Hydrolytic half-life	5.2 hours (t 1/2)	OECD 111 Hydrolysis func of pH
Benzoyl Peroxide	94-36-0	Experimental Biodegradation	28 days	Biological Oxygen Demand	71 % BOD/ThOD	OECD 301D - Closed Bottle Test
Benzoic Acid, C9-11-Branched Alkyl	131298-44-7	Data not availbl-insufficient	N/A	N/A	N/A	N/A

Esters						
Ethylene Glycol	107-21-1	Experimental Biodegradation	14 days	Biological Oxygen Demand	90 % BOD/ThOD	OECD 301C - MITI (I)
Zinc Stearate	557-05-1	Experimental Biodegradation	28 days	Biological Oxygen Demand	14.6 % BOD/ThOD	OECD 301D - Closed Bottle Test
Calcium Sulfate	7778-18-9	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Iron Oxide (FE2O3)	1309-37-1	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	9038-95-3	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Ferric Ammonium Ferrocyanide	25869-00-5	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Ferric Ferrocyanide	14038-43-8	Data not availbl-insufficient	N/A	N/A	N/A	N/A

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Benzoyl Peroxide	94-36-0	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	3.2	OECD 117 log Kow HPLC method
Benzoic Acid, C9-11-Branched Alkyl Esters	131298-44-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Ethylene Glycol	107-21-1	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	-1.36	Non-standard method
Zinc Stearate	557-05-1	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	4.64	OECD 117 log Kow HPLC method
Calcium Sulfate	7778-18-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Iron Oxide (FE2O3)	1309-37-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	9038-95-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Ferric	25869-00-5	Data not	N/A	N/A	N/A	N/A

Ammonium Ferrocyanide		available or insufficient for classification				
Ferric Ferrocyanide	14038-43-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other adverse effects
No information available

SECTION 13: Disposal considerations

13.1. Disposal methods

According to the Environmental Quality (Scheduled Wastes) Regulations 2005, scheduled waste has to be sent to a prescribed premise for recycling, treatment or disposal. Please approach Kualiti Alam for proper schedule waste classification and disposal.

SECTION 14: Transport Information

Marine Transport (IMDG)

UN Number:UN3108
Proper Shipping Name:ORGANIC PEROXIDE TYPE E, SOLID
Technical Name: None assigned.
Hazard Class/Division:5.2
Subsidiary Risk: None assigned.
Packing Group: None assigned.
Limited Quantity: Yes
Marine Pollutant: None assigned.
Marine Pollutant Technical Name: None assigned.
Other Dangerous Goods Descriptions:
None assigned.

Air Transport (IATA)

UN Number:UN3108
Proper Shipping Name:ORGANIC PEROXIDE TYPE E, SOLID
Technical Name: None assigned.
Hazard Class/Division: None assigned.
Subsidiary Risk: None assigned.
Packing Group: None assigned.
Limited Quantity: None assigned.
Marine Pollutant: None assigned.
Marine Pollutant Technical Name: None assigned.
Other Dangerous Goods Descriptions:
Protect from direct sunlight and all sources of heat and place in adequately ventilated areas.

Transportation classifications are provided as a customer service. As for shipping, YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M's transportation

classifications are based on product formulation, packaging, 3M policies and 3M's understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling or marking requirements. The above information is only for reference. If you are shipping by air or ocean, YOU are advised to check & meet applicable regulatory requirements.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Global inventory status
Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

SECTION 16: Other information

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

3M Malaysia SDSs are available at www.3M.com.my

Safety Data Sheet

Document Group:	24-8104-2	**Version Number:**	3.00
Issue Date:	07/11/2019	**Supercedes Date:**	25/11/2014

This Safety Data Sheet has been prepared in accordance with the Malaysia Occupational Safety and Health (Chemical Classification, Labelling and Safety Data Sheets) Regulations 2013.

SECTION 1: Identification

1.1. Product identifier
3M™ Platinum Body Filler, P.N. 01121, 01171, 01231, 01271, 01311, 31138, 31311, 01171D

Product Identification Numbers
41-0003-6574-6 70-0080-0105-2 70-0080-0109-4

1.2. Recommended use and restrictions on use

Recommended use
Automotive, Body Filler

1.3. Supplier's details
ADDRESS: 3M Malaysia Sdn. Bhd., Level 8, Block F, Oasis Square, No.2, Jalan PJU 1A/7A, Ara Damansara 47301 Petaling, Jaya, Selangor
Telephone: 03-7884 2888
E Mail: 3mmyehsr@mmm.com
Website: www.3M.com.my

1.4. Emergency telephone number
+60 03-7884 2888

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
Flammable Liquid: Category 3.
Serious Eye Damage/Irritation: Category 2.
Reproductive Toxicity: Category 1B.
Carcinogenicity: Category 1A.
Specific Target Organ Toxicity (single exposure): Category 1.
Specific Target Organ Toxicity (repeated exposure): Category 1.
Chronic Aquatic Toxicity: Category 2.

2.2. Label elements
Signal word
Danger

Symbols
Flame | Exclamation mark | Health Hazard | Environment |

Pictograms

Hazard Statements

H226	Flammable liquid and vapor.
H319	Causes serious eye irritation.
H360	May damage fertility or the unborn child.
H350	May cause cancer.
H370	Causes damage to organs: liver | sensory organs |
H372	Causes damage to organs through prolonged or repeated exposure: respiratory system | sensory organs |
H373	May cause damage to organs through prolonged or repeated exposure: liver | sensory organs |
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

General:

P102	Keep out of reach of children.
P101	If medical advice is needed, have product container or label at hand.

Prevention:

P201	Obtain special instructions before use.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233	Keep container tightly closed.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P280B	Wear protective gloves and eye/face protection.
P281	Use personal protective equipment as required.
P273	Avoid release to the environment.

Response:

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P307 + P311	IF exposed: Call a POISON CENTER or doctor/physician.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P370 + P378G	In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Storage:

P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Disposal:

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

2.3. Other hazards
May cause drowsiness or dizziness.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Polyester Polymer	Trade Secret	10 - 30
SODIUM SILICATE	Trade Secret	< 7
Thickening Agent	Trade Secret	1 - 5
Fatty Acid Amides	Trade Secret	0.1 - 2
SODIUM METABORATE	Trade Secret	< 1.5
Treated Wax	Trade Secret	0.5 1
Styrene Monomer	Trade Secret	10 - 30
Proprietary Polyester Resin	Trade Secret	10 - 30
Talc	14807-96-6	10 - 30
Inert Filler	Trade Secret	5 - 10
Magnesium Carbonate	546-93-0	1 - 5
Limestone	1317-65-3	1 - 5
Titanium Dioxide	13463-67-7	1 - 5
Zinc Phosphate	7779-90-0	0.5 - 1.5
Quartz Silica	Trade Secret	< 0.5

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 for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately 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	Condition
Hydrocarbons	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Oxides of Nitrogen	During Combustion
Oxides of Phosphorus	During Combustion
Oxides of Zinc	During Combustion

5.3. Special protective actions for fire-fighters
Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

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

6.3. Methods and material for containment and cleaning up
Contain spill. Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
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. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. 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 to prevent loss of stabilizing materials. Store away from heat. 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

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
Limestone	1317-65-3	Malaysia OELs	TWA (proposed)(8 hours):10 mg/m3	
Titanium Dioxide	13463-67-7	ACGIH	TWA:10 mg/m3	A4: Not class. as human carcin
Titanium Dioxide	13463-67-7	Malaysia OELs	TWA(8 hours):10 mg/m3	
DUST, INERT OR NUISANCE	14807-96-6	Malaysia OELs	TWA (proposed)(Inhalable particulate)(8 hours):10 mg/m3;TWA (proposed)(respirable particles)(8 hours):3 mg/m3	
Talc	14807-96-6	ACGIH	TWA(respirable fraction):2 mg/m3	A4: Not class. as human carcin
Talc	14807-96-6	Malaysia OELs	TWA(respirable fraction)(8 hours):2 mg/m3	
Magnesium Carbonate	546-93-0	Malaysia OELs	TWA (proposed)(8 hours):10 mg/m3	
Inert Filler	Trade Secret	Manufacturer determined	TWA(as non-fibrous, inhalable fraction)(8 hours):10 mg/m3;TWA(as non-fibrous, respirable)(8 hours):3 mg/m3	
Inert Filler	Trade Secret	ACGIH	TWA(as fiber):0.2 fiber/cc;TWA(as fiber):1 fiber/cc;TWA(inhalable fraction):5 mg/m3	A3: Confirmed animal carcin., A4: Not class. as human carcin, A2: Suspected human carcin.
Inert Filler	Trade Secret	Malaysia OELs	TWA(as fiber)(8 hours):1 fibers/ml;TWA(inhalable fraction)(8 hours):5 mg/m3	
Quartz Silica	Trade Secret	ACGIH	TWA(respirable fraction):0.025 mg/m3	A2: Suspected human carcin.
Quartz Silica	Trade Secret	Malaysia OELs	TWA(respirable fraction)(8 hours):0.1 mg/m3	
Styrene Monomer	Trade Secret	ACGIH	TWA:20 ppm;STEL:40 ppm	A4: Not class. as human carcin
Styrene Monomer	Trade Secret	Malaysia OELs	TWA(8 hours):85.2 mg/m3(20 ppm)	SKIN
Treated Wax	Trade	ACGIH	TWA(as fume):2 mg/m3	

	Secret			
Treated Wax	Trade Secret	Malaysia OELs	TWA(as fume)(8 hours):2 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists
CMRG : Chemical Manufacturer's Recommended Guidelines
Malaysia OELs : Malaysia. Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations
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: Fluoroelastomer
Polyvinyl Alcohol (PVA)
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

Physical state	Liquid
Color	Off-White
Odor	Pungent Styrene
Odor threshold	*No Data Available*
pH	*No Data Available*
Melting point/Freezing point	*No Data Available*
Boiling point/Initial boiling point/Boiling range	> 145 ºC
Boiling point/Initial boiling point/Boiling range	> 145 ºC
Flash Point	31.1 ºC [*Test Method:*Closed Cup]
Flash Point	31 ºC [*Test Method:*SETAFLASH]

Evaporation rate	< 1 [*Ref Std:*ETHER=1]
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	1.1 %
Flammable Limits(UEL)	*No Data Available*
Vapor Pressure	599.9 Pa
Vapor Density	> 1 [*Ref Std:*AIR=1]
Density	0.965 g/ml
Relative Density	0.965 [*Ref Std:*WATER=1]
Water solubility	Negligible
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*No Data Available*
Decomposition temperature	*No Data Available*
Viscosity	144,000 mPa-s - 168,000 mPa-s
Volatile Organic Compounds	228 g/l [*Test Method:*calculated SCAQMD rule 443.1]
Volatile Organic Compounds	23.6 % weight [*Test Method:*calculated per CARB title 2]
Percent volatile	24.1 % weight [*Details:*excluding exempt compounds]
VOC Less H2O & Exempt Solvents	229 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. Stable under normal conditions. May become unstable at elevated temperatures and/or pressure.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur. May occur at temperatures over 150ºF (65ºC).

10.4. Conditions to avoid
Heat
Sparks and/or flames

10.5. Incompatible materials
Alkali and alkaline earth metals
Strong acids
Strong oxidizing agents
Strong bases

10.6. Hazardous decomposition products

Substance	Condition
Styrene Oxide	Not Specified
Toxic Vapor, Gas, Particulate	Not Specified

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

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

relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:
May be harmful if inhaled.
Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

Skin Contact:
Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

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:
Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

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

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

Prolonged or repeated exposure may cause target organ effects:
Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests.

Ocular Effects: Signs/symptoms may include blurred or significantly impaired vision.

Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

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

Reproductive/Developmental Toxicity:
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

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

Toxicological Data

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-Vapor(4 hr)		No data available; calculated ATE20 - 50 mg/l
Overall product	Ingestion		No data available; calculated ATE2,000 - 5,000 mg/kg
Styrene Monomer	Dermal	Rat	LD50 > 2,000 mg/kg
Styrene Monomer	Inhalation-Vapor (4 hours)	Rat	LC50 8.3 mg/l
Styrene Monomer	Ingestion	Rat	LD50 5,000 mg/kg
Talc	Dermal		LD50 estimated to be > 5,000 mg/kg
Talc	Ingestion		LD50 estimated to be > 5,000 mg/kg
Polyester Polymer	Dermal		LD50 estimated to be > 5,000 mg/kg
Polyester Polymer	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Inert Filler	Dermal		LD50 estimated to be > 5,000 mg/kg
Inert Filler	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
SODIUM SILICATE	Dermal	Rabbit	LD50 > 4,640 mg/kg
SODIUM SILICATE	Ingestion	Rat	LD50 500 mg/kg
Magnesium Carbonate	Dermal	Professional judgement	LD50 estimated to be 2,000 - 5,000 mg/kg
Magnesium Carbonate	Ingestion	Rat	LD50 > 2,000 mg/kg
Limestone	Dermal	Rat	LD50 > 2,000 mg/kg
Limestone	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3 mg/l
Limestone	Ingestion	Rat	LD50 6,450 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
Zinc Phosphate	Dermal		LD50 estimated to be > 5,000 mg/kg
Zinc Phosphate	Ingestion	Rat	LD50 > 5,000 mg/kg
SODIUM METABORATE	Dermal	Rabbit	LD50 > 2,000 mg/kg
SODIUM METABORATE	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 2.03 mg/l
SODIUM METABORATE	Ingestion	Rat	LD50 2,330 mg/kg
Treated Wax	Dermal	Rat	LD50 > 5,000 mg/kg
Treated Wax	Ingestion	Rat	LD50 > 5,000 mg/kg
Quartz Silica	Dermal		LD50 estimated to be > 5,000 mg/kg
Quartz Silica	Ingestion		LD50 estimated to be > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Styrene Monomer	official classification	Mild irritant
Talc	Rabbit	No significant irritation
Inert Filler	Professional judgement	No significant irritation

SODIUM SILICATE	Rabbit	Corrosive
Magnesium Carbonate	In vitro data	No significant irritation
Limestone	Rabbit	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation
SODIUM METABORATE	Rabbit	No significant irritation
Treated Wax	Rabbit	No significant irritation
Quartz Silica	Professional judgement	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Styrene Monomer	official classification	Moderate irritant
Talc	Rabbit	No significant irritation
Inert Filler	Professional judgement	No significant irritation
SODIUM SILICATE	Rabbit	Corrosive
Magnesium Carbonate	Rabbit	Mild irritant
Limestone	Rabbit	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation
SODIUM METABORATE	Rabbit	Severe irritant
Treated Wax	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Styrene Monomer	Guinea pig	Not classified
SODIUM SILICATE	Mouse	Not classified
Titanium Dioxide	Human and animal	Not classified
SODIUM METABORATE	similar compounds	Not classified
Treated Wax	Guinea pig	Not classified

Respiratory Sensitization

Name	Species	Value
Talc	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
Styrene Monomer	In Vitro	Some positive data exist, but the data are not sufficient for classification
Styrene Monomer	In vivo	Some positive data exist, but the data are not sufficient for classification
Talc	In Vitro	Not mutagenic
Talc	In vivo	Not mutagenic
Inert Filler	In Vitro	Some positive data exist, but the data are not sufficient for classification
SODIUM SILICATE	In Vitro	Not mutagenic
SODIUM SILICATE	In vivo	Not mutagenic
Titanium Dioxide	In Vitro	Not mutagenic

Titanium Dioxide	In vivo	Not mutagenic
SODIUM METABORATE	In Vitro	Not mutagenic
SODIUM METABORATE	In vivo	Not mutagenic
Treated Wax	In Vitro	Not mutagenic
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

Carcinogenicity

Name	Route	Species	Value
Styrene Monomer	Ingestion	Mouse	Carcinogenic
Styrene Monomer	Inhalation	Human and animal	Carcinogenic
Talc	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Inert Filler	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Titanium Dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium Dioxide	Inhalation	Rat	Carcinogenic
Treated Wax	Ingestion	Rat	Not carcinogenic
Quartz Silica	Inhalation	Human and animal	Carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Styrene Monomer	Ingestion	Not classified for female reproduction	Rat	NOAEL 21 mg/kg/day	3 generation
Styrene Monomer	Inhalation	Not classified for female reproduction	Rat	NOAEL 2.1 mg/l	2 generation
Styrene Monomer	Inhalation	Not classified for male reproduction	Rat	NOAEL 2.1 mg/l	2 generation
Styrene Monomer	Ingestion	Not classified for male reproduction	Rat	NOAEL 400 mg/kg/day	60 days
Styrene Monomer	Ingestion	Not classified for development	Rat	NOAEL 400 mg/kg/day	during gestation
Styrene Monomer	Inhalation	Not classified for development	Multiple animal species	NOAEL 2.1 mg/l	during gestation
Talc	Ingestion	Not classified for development	Rat	NOAEL 1,600 mg/kg	during organogenesis
SODIUM SILICATE	Ingestion	Not classified for development	Mouse	NOAEL 200 mg/kg/day	during gestation
Limestone	Ingestion	Not classified for development	Rat	NOAEL 625 mg/kg/day	premating & during gestation
SODIUM METABORATE	Ingestion	Toxic to female reproduction	similar compounds	NOAEL 106 mg/kg/day	3 generation
SODIUM METABORATE	Ingestion	Toxic to male reproduction	similar compounds	NOAEL 106 mg/kg/day	3 generation
SODIUM METABORATE	Ingestion	Toxic to development	similar compounds	NOAEL 133 mg/kg/day	during gestation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Styrene Monomer	Inhalation	auditory system	Causes damage to organs	Multiple animal species	LOAEL 4.3 mg/l	not available
Styrene Monomer	Inhalation	liver	Causes damage to organs	Mouse	LOAEL 2.1 mg/l	not available
Styrene Monomer	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	occupational exposure
Styrene Monomer	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	
Styrene Monomer	Inhalation	endocrine system	Not classified	Rat	NOAEL Not available	not available
Styrene Monomer	Inhalation	kidney and/or bladder	Not classified	Multiple animal species	NOAEL 2.1 mg/l	not available
SODIUM SILICATE	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
Limestone	Inhalation	respiratory system	Not classified	Rat	NOAEL 0.812 mg/l	90 minutes
SODIUM METABORATE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Styrene Monomer	Inhalation	eyes	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Styrene Monomer	Inhalation	auditory system	May cause damage to organs though prolonged or repeated exposure	Multiple animal species	NOAEL 1.3 mg/l	not available
Styrene Monomer	Inhalation	liver	May cause damage to organs though prolonged or repeated exposure	Mouse	LOAEL 0.85 mg/l	13 weeks
Styrene Monomer	Inhalation	nervous system	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	LOAEL 1.1 mg/l	not available
Styrene Monomer	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 0.85 mg/l	7 days
Styrene Monomer	Inhalation	endocrine system	Not classified	Rat	NOAEL 0.6 mg/l	10 days
Styrene Monomer	Inhalation	respiratory system	Not classified	Multiple animal species	LOAEL 0.09 mg/l	not available
Styrene Monomer	Inhalation	heart | gastrointestinal tract | bone, teeth, nails, and/or hair | muscles | kidney and/or bladder	Not classified	Multiple animal species	NOAEL 4.3 mg/l	2 years
Styrene Monomer	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 500 mg/kg/day	8 weeks
Styrene Monomer	Ingestion	immune system	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL Not available	not available
Styrene Monomer	Ingestion	liver | kidney and/or bladder	Not classified	Rat	NOAEL 677 mg/kg/day	6 months
Styrene Monomer	Ingestion	hematopoietic system	Not classified	Dog	NOAEL 600 mg/kg/day	470 days
Styrene Monomer	Ingestion	heart | respiratory system	Not classified	Rat	NOAEL 35 mg/kg/day	105 weeks

Talc	Inhalation	pneumoconiosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Talc	Inhalation	pulmonary fibrosis | respiratory system	Not classified	Rat	NOAEL 18 mg/m3	113 weeks
Inert Filler	Inhalation	respiratory system	Not classified	Human	NOAEL not available	occupational exposure
SODIUM SILICATE	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Dog	LOAEL 2,400 mg/kg/day	4 weeks
SODIUM SILICATE	Ingestion	endocrine system | blood	Not classified	Rat	NOAEL 804 mg/kg/day	3 months
SODIUM SILICATE	Ingestion	heart | liver	Not classified	Rat	NOAEL 1,259 mg/kg/day	8 weeks
Limestone	Inhalation	respiratory system	Not classified	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 0.01 mg/l	2 years
Titanium Dioxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
SODIUM METABORATE	Ingestion	hematopoietic system | eyes	Not classified	similar compounds	NOAEL 100 mg/kg/day	2 years
Treated Wax	Ingestion	heart	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 15 mg/kg/day	90 days
Treated Wax	Ingestion	hematopoietic system | liver | immune system | skin | endocrine system | bone, teeth, nails, and/or hair | muscles | nervous system | eyes | kidney and/or bladder | respiratory system | vascular system	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
Quartz Silica	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	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

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labeling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:
GHS Acute 2: Toxic to aquatic life.

Chronic aquatic hazard:
GHS Chronic 2: Toxic to aquatic life with long lasting effects

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result
Polyester Polymer	Trade Secret		Data not available or insufficient for classification			
SODIUM SILICATE	Trade Secret	Rainbow Trout	Experimental	96 hours	Lethal Concentration 50%	281 mg/l
SODIUM SILICATE	Trade Secret	Green algae	Experimental	72 hours	Effect Concentration 50%	>345.4 mg/l
SODIUM SILICATE	Trade Secret	Water flea	Experimental	48 hours	Effect Concentration 50%	1,700 mg/l
SODIUM SILICATE	Trade Secret	Green algae	Experimental	72 hours	No obs Effect Conc	35 mg/l
Fatty Acid Amides	Trade Secret		Data not available or insufficient for classification			
Fatty Acid Amides	Trade Secret		Insufficient to classify			
SODIUM METABORATE	Trade Secret	Water flea	Estimated	48 hours	Lethal Concentration 50%	810 mg/l
SODIUM METABORATE	Trade Secret	Green Algae	Estimated	72 hours	Effect Concentration 50%	320 mg/l
SODIUM METABORATE	Trade Secret	Fish other	Experimental	96 hours	Lethal Concentration 50%	450 mg/l
SODIUM METABORATE	Trade Secret	Water flea	Estimated	21 days	No obs Effect Conc	60.9 mg/l
SODIUM METABORATE	Trade Secret	Zebra Fish	Estimated	34 days	No obs Effect Conc	34.1 mg/l
SODIUM METABORATE	Trade Secret	Green Algae	Estimated	72 hours	Effect Concentration 10%	213 mg/l
Treated Wax	Trade Secret	Green algae	Estimated	96 hours	Effect Concentration 50%	>1,000 mg/l
Treated Wax	Trade Secret	Rainbow Trout	Estimated	96 hours	Lethal Concentration 50%	>1,000 mg/l
Treated Wax	Trade Secret	Water flea	Estimated	48 hours	Effect Concentration 50%	>10,000 mg/l
Styrene Monomer	Trade Secret	Fathead Minnow	Experimental	96 hours	Lethal Concentration 50%	4.02 mg/l

Styrene Monomer	Trade Secret	Green Algae	Experimental	72 hours	Effect Concentration 50%	4.9 mg/l
Styrene Monomer	Trade Secret	Water flea	Experimental	48 hours	Effect Concentration 50%	4.7 mg/l
Styrene Monomer	Trade Secret	Green algae	Experimental	96 hours	Effect Concentration 10%	0.28 mg/l
Styrene Monomer	Trade Secret	Water flea	Experimental	21 days	No obs Effect Conc	1.01 mg/l
Talc	14807-96-6		Data not available or insufficient for classification			
Inert Filler	Trade Secret	Zebra Fish	Experimental	96 hours	Lethal Concentration 50%	>1,000 mg/l
Inert Filler	Trade Secret	Water flea	Experimental	72 hours	Effect Concentration 50%	>1,000 mg/l
Inert Filler	Trade Secret	Green algae	Experimental	72 hours	Effect Concentration 50%	>1,000 mg/l
Inert Filler	Trade Secret	Green algae	Experimental	72 hours	No obs Effect Conc	>=1,000 mg/l
Magnesium Carbonate	546-93-0	Fathead Minnow	Estimated	96 hours	Lethal Concentration 50%	1,880 mg/l
Magnesium Carbonate	546-93-0	Green algae	Estimated	72 hours	Effect Concentration 50%	>100 mg/l
Magnesium Carbonate	546-93-0	Water flea	Estimated	48 hours	Lethal Concentration 50%	486 mg/l
Magnesium Carbonate	546-93-0	Green algae	Estimated	72 hours	No obs Effect Conc	100 mg/l
Magnesium Carbonate	546-93-0	Water flea	Estimated	21 days	Effect Concentration 10%	284 mg/l
Limestone	1317-65-3	Green algae	Estimated	72 hours	Effect Concentration 50%	>100 mg/l
Limestone	1317-65-3	Rainbow Trout	Estimated	96 hours	Lethal Concentration 50%	>100 mg/l
Limestone	1317-65-3	Water flea	Estimated	48 hours	Effect Concentration 50%	>100 mg/l
Limestone	1317-65-3	Green algae	Estimated	72 hours	Effect Concentration 10%	>100 mg/l
Titanium Dioxide	13463-67-7	Diatom	Experimental	72 hours	Effect Concentration 50%	>10,000 mg/l

Titanium Dioxide	13463-67-7	Fathead Minnow	Experimental	96 hours	Lethal Concentration 50%	>100 mg/l
Titanium Dioxide	13463-67-7	Water flea	Experimental	48 hours	Effect Concentration 50%	>100 mg/l
Titanium Dioxide	13463-67-7	Diatom	Experimental	72 hours	No obs Effect Conc	5,600 mg/l
Zinc Phosphate	7779-90-0	Rainbow Trout	Experimental	96 hours	Lethal Concentration 50%	0.18 mg/l
Quartz Silica	Trade Secret	Zebra Fish	Estimated	96 hours	Lethal Concentration 50%	5,000 mg/l
Quartz Silica	Trade Secret	Water flea	Estimated	48 hours	Effect Concentration 50%	7,600 mg/l
Quartz Silica	Trade Secret	Green Algae	Estimated	72 hours	Effect Concentration 50%	440 mg/l
Quartz Silica	Trade Secret	Green Algae	Estimated	72 hours	No obs Effect Conc	60 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Polyester Polymer	Trade Secret	Data not availbl-insufficient			N/A	
SODIUM SILICATE	Trade Secret	Data not availbl-insufficient			N/A	
Fatty Acid Amides	Trade Secret	Data not availbl-insufficient			N/A	
SODIUM METABORATE	Trade Secret	Data not availbl-insufficient			N/A	
Treated Wax	Trade Secret	Estimated Biodegradation	28 days	Biological Oxygen Demand	40 % weight	OECD 301F - Manometric Respiro
Styrene Monomer	Trade Secret	Experimental Photolysis		Photolytic half-life (in air)	6.64 hours (t 1/2)	Other methods
Styrene Monomer	Trade Secret	Experimental Biodegradation	28 days	Biological Oxygen Demand	70.9 % BOD/ThBOD	Other methods
Talc	14807-96-6	Data not availbl-insufficient			N/A	
Inert Filler	Trade Secret	Data not availbl-insufficient			N/A	
Magnesium Carbonate	546-93-0	Data not availbl-			N/A	

		insufficient				
Limestone	1317-65-3	Data not availbl-insufficient			N/A	
Titanium Dioxide	13463-67-7	Data not availbl-insufficient			N/A	
Zinc Phosphate	7779-90-0	Data not availbl-insufficient			N/A	
Quartz Silica	Trade Secret	Data not availbl-insufficient			N/A	

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Polyester Polymer	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
SODIUM SILICATE	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Fatty Acid Amides	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
SODIUM METABORATE	Trade Secret	Estimated BCF - Other	104 days	Bioaccumulation Factor	< 0.1	Other methods
Treated Wax	Trade Secret	Estimated Bioconcentration		Log of Octanol/H2O part. coeff	10.2	Est: Octanol-water part. coeff
Styrene Monomer	Trade Secret	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	2.96	Other methods
Talc	14807-96-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Inert Filler	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Magnesium Carbonate	546-93-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Limestone	1317-65-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Titanium	13463-67-7	Experimental	42 days	Bioaccumulatio	9.6	Other methods

Dioxide		BCF-Carp		n Factor		
Zinc Phosphate	7779-90-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Quartz Silica	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other adverse effects
No information available

SECTION 13: Disposal considerations

13.1. Disposal methods

According to the Environmental Quality (Scheduled Wastes) Regulations 2005, scheduled waste has to be sent to a prescribed premise for recycling, treatment or disposal. Please approach Kualiti Alam for proper schedule waste classification and disposal.

SECTION 14: Transport Information

Marine Transport (IMDG)

UN Number:UN1866
Proper Shipping Name:RESIN SOLUTION
Technical Name: None assigned.
Hazard Class/Division:3
Subsidiary Risk: None assigned.
Packing Group:III
Limited Quantity: Yes
Marine Pollutant: Yes
Marine Pollutant Technical Name: None assigned.
Other Dangerous Goods Descriptions:
None assigned.

Air Transport (IATA)
Forbidden: Not classified by 3M for this regulatory agency

Transportation classifications are provided as a customer service. As for shipping, YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M's transportation classifications are based on product formulation, packaging, 3M policies and 3M's understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling or marking requirements. The above information is only for reference. If you are shipping by air or ocean, YOU are advised to check & meet applicable regulatory requirements.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Global inventory status
Contact manufacturer for more information The components of this product are in compliance with the chemical notification requirements of TSCA.

SECTION 16: Other information

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

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