Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the China GB/T16483-2008 'Safety data sheet for chemical products content and order of sections.'

SECTION 1: Identification

1.1. Product identifier
3M™ Rocker Protector Pouch, PN08733, 08734

Product Identification Numbers
60-4550-6706-0 60-4550-6975-1

1.2. Recommended use and restrictions on use

Recommended use
Automotive, Anti-Chip Coating

1.3. Supplier's details
Company: 3M Canada Company
ADDRESS: 1840 Oxford Street East London, Ontario N5V 3R6 Canada
Phone: 021-22105335
FAX: 021-22105036
E Mail: Tox.cn@mmm.com
Website: www.3m.com.cn

1.4. Emergency telephone number
National chemical accident emergency consulting hotline: 0532-83889090 (24hr)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
Flammable Liquid: Category 2.
Acute Toxicity (inhalation): Category 5.
Serious Eye Damage/Irritation: Category 2B.
Skin Corrosion/Irritation: Category 2.
Reproductive Toxicity: Category 1B.
Carcinogenicity: Category 1A.
Specific Target Organ Toxicity (single exposure): Category 1.
Specific Target Organ Toxicity (central nervous system): Category 3.
Specific Target Organ Toxicity (repeated exposure): Category 1.
Acute Aquatic Toxicity: Category 2.

2.2. Label elements
SIGNAL WORD
Danger

Symbols
Flame | Exclamation mark | Health Hazard |

Pictograms

HAZARD STATEMENTS

H225	Highly flammable liquid and vapor.
H320	Causes eye irritation.
H315	Causes skin irritation.
H333	May be harmful if inhaled.
H336	May cause drowsiness or dizziness.
H360	May damage fertility or the unborn child.
H350	May cause cancer.
H370	Causes damage to organs: sensory organs |
H372	Causes damage to organs through prolonged or repeated exposure: nervous system | respiratory system | sensory organs |
H401	Toxic to aquatic life.

PRECAUTIONARY STATEMENTS
General:

P102	Keep out of reach of children. Keep away from food, drink and animal feed.
P263	Avoid contact during pregnancy/while nursing.
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.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P280E	Wear protective gloves.

Response:

P304 + P312	IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P332 + P313	If skin irritation occurs: Get medical advice/attention.

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 and solids such as dry chemical or carbon dioxide to extinguish.

Storage:

P405	Store locked up.

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
Toluene	108-88-3	40 - 60
Xylene	1330-20-7	7 - 13
Coumarone-Indene Resins	63393-89-5	7 - 13
Kaolin	1332-58-7	7 - 13
Limestone	1317-65-3	3 - 7
Styrene-Butadiene Polymer	9003-55-8	3 - 7
Butadiene-Styrene-Meta-Divinylbenzene Polymer	26471-45-4	1 - 5
Synthetic Amorphous Silica, Fumed, Crystalline Free	112945-52-5	1 - 5
Formaldehyde, Polymer with 4-(1,1-Dimethylethyl)Phenol, Magnesium Oxide Complex	68037-42-3	1 - 5
Quaternary Ammonium Compounds, Bis(Hydrogenated Tallow Alkyl)Dimethyl, Salts with Montmorillonite	68911-87-5	1 - 5
Ethylbenzene	100-41-4	< 5
Titanium Dioxide	13463-67-7	< 1
Quartz Silica	14808-60-7	< 0.2

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. Advice to protect the rescuer and special warning to doctors
Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation and personal protective equipment.

4.4. 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.

5.3. Special protective actions for fire-fighters
Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures

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

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

6.3. Methods and material for containment and cleaning up
Contain spill. Cover spill area with a fire-extinguishing foam designed for use on solvents, such as alcohols and acetone, that can dissolve in water. An AR - AFFF type foam is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for use in transportation by appropriate authorities. The container must be lined with polyethylene plastic or contain a plastic drum liner made of polyethylene. 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.

6.4. Secondary disaster prevention measures
Not applicable.

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. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. 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.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Protect from sunlight. Store away from heat. Store away from acids. Store away from oxidizing agents. Store away from areas where product may come into contact with food or pharmaceuticals. Store in a dry place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Ethylbenzene	100-41-4	Amer Conf of Gov. Indust. Hyg.	TWA:20 ppm	
Ethylbenzene	100-41-4	Chemical Manufacturer Rec Guid	TWA:25 ppm;STEL:75 ppm	
Ethylbenzene	100-41-4	China OELs	TWA(8 hours):100 mg/m3;STEL(15 minutes):150 mg/m3	
Ethylbenzene	100-41-4	Hong Kong OELs	TWA(8 hours):434 mg/m3(100 ppm);STEL(15 minutes):543 mg/m3(125 ppm)	
Toluene	108-88-3	Amer Conf of Gov. Indust. Hyg.	TWA:20 ppm	
Toluene	108-88-3	Chemical Manufacturer Rec Guid	STEL:75 ppm	Skin Notation
Toluene	108-88-3	China OELs	TWA(8 hours):50 mg/m3;STEL(15 minutes):100 mg/m3	Skin Notation
Toluene	108-88-3	Hong Kong OELs	TWA(8 hours):188 mg/m3(50 ppm)	
Limestone	1317-65-3	China OELs	TWA(as respirable dust)(8 hours):4 mg/m3;TWA(as total dust)(8 hours):8 mg/m3	
Limestone	1317-65-3	Hong Kong	TWA(as inhalable dust)(8	

		OELs	hours):10 mg/m3;TWA(as respirable dust)(8 hours):4 mg/m3	
Xylene	1330-20-7	Amer Conf of Gov. Indust. Hyg.	TWA:100 ppm;STEL:150 ppm	
Xylene	1330-20-7	Chemical Manufacturer Rec Guid	TWA:50 ppm;STEL:75 ppm	
Xylene	1330-20-7	China OELs	TWA(8 hours):50 mg/m3;STEL(15 minutes):100 mg/m3	
Xylene	1330-20-7	Hong Kong OELs	TWA(8 hours):434 mg/m3(100 ppm);STEL(15 minutes):651 mg/m3(150 ppm)	
Kaolin	1332-58-7	Amer Conf of Gov. Indust. Hyg.	TWA(respirable fraction):2 mg/m3	
Kaolin	1332-58-7	Hong Kong OELs	TWA(as respirable dust)(8 hours):2 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	China OELs	TWA(as total dust)(8 hours):8 mg/m3	
Titanium Dioxide	13463-67-7	Hong Kong OELs	TWA(as inhalable dust)(8 hours):10 mg/m3;TWA(as respirable dust)(8 hours):4 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	China OELs	TWA(as respirable dust)(8 hours):0.7 mg/m3;TWA(as total dust)(8 hours):1 mg/m3	
Quartz Silica	14808-60-7	Hong Kong OELs	TWA(as respirable dust)(8 hours):0.1 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
China OELs : China. Occupational Exposure Limits for Hazardous Agents in the Workplace (GBZ 2.1)
Hong Kong OELs : Hong Kong. Occupational Exposure Limits for Chemical Substances in the Work Environment
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. Provide appropriate local exhaust ventilation on open containers. Use in a well-ventilated area.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Indirect Vented Goggles

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.
Gloves made from the following material(s) are recommended: Polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance/Odor	Off-White Liquid, Solvent Odor
Odor threshold	*No Data Available*
pH	*Not Applicable*
Melting point/Freezing point	*Not Applicable*
Boiling point/Initial boiling point/Boiling range	>=112.2 ºC [*Details:* From Boiling Points of Toluene and Xylene.]
Flash Point	2.2 ºC [*Test Method:* Pensky-Martens Closed Cup]
Evaporation rate	*No Data Available*
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	1 % [*Details:* email from Ray D]
Flammable Limits(UEL)	7.1 % [*Details:* email from Ray D]
Vapor Pressure	<=2,933.1 Pa [@ 20 ºC]
Vapor Density	*No Data Available*
Density	0.98 - 1.02 g/ml
Relative Density	0.98 - 1.02 [*Ref Std:* WATER=1]
Water solubility	*Not Applicable*
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*No Data Available*
Decomposition temperature	*No Data Available*

Viscosity	3 - 3.5 Pa-s
Hazardous Air Pollutants	63.4 % weight [*Test Method:* Calculated]
Volatile Organic Compounds	548 g/l [*Test Method:* calculated SCAQMD rule 443.1]
Volatile Organic Compounds	4.58 lb/gal [*Test Method:* calculated SCAQMD rule 443.1]
Volatile Organic Compounds	60.6 % weight [*Test Method:* calculated per CARB title 2]
Percent volatile	60.9 % weight
VOC Less H2O & Exempt Solvents	548 g/l [*Test Method:* calculated SCAQMD rule 443.1]

SECTION 10: Stability and reactivity

10.1. Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability
Stable.

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

10.4. Conditions to avoid
Heat
Sparks and/or flames

10.5. Incompatible materials
Strong acids
Strong oxidizing agents

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:
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 target organ effects after inhalation.

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

Eye Contact:
Moderate 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.

May cause target organ effects after ingestion.

Target Organ Effects:

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

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:
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.

Olfactory Effects: Signs/symptoms may include decreased ability to detect odors and/or complete loss of smell.

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.

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 ATE 20 - 50 mg/l
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
Toluene	Dermal	Rat	LD50 12,000 mg/kg
Toluene	Inhalation-Vapor (4 hours)	Rat	LC50 30 mg/l
Toluene	Ingestion	Rat	LD50 5,550 mg/kg
Xylene	Dermal	Rabbit	LD50 > 4,200 mg/kg
Xylene	Inhalation-	Rat	LC50 29 mg/l

	Vapor (4 hours)		
Xylene	Ingestion	Rat	LD50 3,523 mg/kg
Coumarone-Indene Resins	Ingestion	Rat	LD50 > 16,000 mg/kg
Kaolin	Dermal		LD50 estimated to be > 5,000 mg/kg
Kaolin	Ingestion	Human	LD50 > 15,000 mg/kg
Styrene-Butadiene Polymer	Dermal	Rabbit	LD50 > 2,000 mg/kg
Styrene-Butadiene Polymer	Ingestion	Rat	LD50 > 5,000 mg/kg
Limestone	Dermal	Rat	LD50 > 2,000 mg/kg
Limestone	Inhalation-Dust/Mist (4 hours)	Rat	LC50 3.0 mg/l
Limestone	Ingestion	Rat	LD50 6,450 mg/kg
Formaldehyde, Polymer with 4-(1,1-Dimethylethyl)Phenol, Magnesium Oxide Complex	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Ethylbenzene	Dermal	Rabbit	LD50 15,433 mg/kg
Ethylbenzene	Inhalation-Vapor (4 hours)	Rat	LC50 17.4 mg/l
Ethylbenzene	Ingestion	Rat	LD50 4,769 mg/kg
Butadiene-Styrene-Meta-Divinylbenzene Polymer	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Synthetic Amorphous Silica, Fumed, Crystalline Free	Dermal	Rabbit	LD50 > 5,000 mg/kg
Synthetic Amorphous Silica, Fumed, Crystalline Free	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Synthetic Amorphous Silica, Fumed, Crystalline Free	Ingestion	Rat	LD50 > 5,110 mg/kg
Quaternary Ammonium Compounds, Bis(Hydrogenated Tallow Alkyl)Dimethyl, Salts with Montmorillonite	Inhalation-Dust/Mist (4 hours)	Not available	LC50 > 5 mg/l
Quaternary Ammonium Compounds, Bis(Hydrogenated Tallow Alkyl)Dimethyl, Salts with Montmorillonite	Ingestion	Rat	LD50 > 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
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
Toluene	Rabbit	Irritant
Xylene	Rabbit	Mild irritant
Kaolin		No significant irritation
Styrene-Butadiene Polymer		No significant irritation
Limestone	Rabbit	No significant irritation
Ethylbenzene	Rabbit	Mild irritant
Butadiene-Styrene-Meta-Divinylbenzene Polymer		Minimal irritation
Synthetic Amorphous Silica, Fumed, Crystalline Free	Rabbit	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation
Quartz Silica		No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Toluene	Rabbit	Moderate irritant
Xylene	Rabbit	Mild irritant
Kaolin		No significant irritation
Limestone	Rabbit	No significant irritation
Ethylbenzene	Rabbit	Moderate irritant
Synthetic Amorphous Silica, Fumed, Crystalline Free	Rabbit	No significant irritation
Titanium Dioxide	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Toluene	Guinea pig	Not sensitizing
Ethylbenzene	Human	Not sensitizing
Synthetic Amorphous Silica, Fumed, Crystalline Free	Human and animal	Not sensitizing
Titanium Dioxide	Human and animal	Not sensitizing

Respiratory Sensitization

Name	Species	Value

Germ Cell Mutagenicity

Name	Route	Value
Toluene	In Vitro	Not mutagenic
Toluene	In vivo	Not mutagenic
Xylene	In Vitro	Not mutagenic
Xylene	In vivo	Not mutagenic
Ethylbenzene	In vivo	Not mutagenic
Ethylbenzene	In Vitro	Some positive data exist, but the data are not sufficient for classification
Synthetic Amorphous Silica, Fumed, Crystalline Free	In Vitro	Not mutagenic
Titanium Dioxide	In Vitro	Not mutagenic
Titanium Dioxide	In vivo	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
Toluene	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Toluene	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
Toluene	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification
Xylene	Dermal	Rat	Not carcinogenic
Xylene	Ingestion	Multiple animal species	Not carcinogenic
Xylene	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification
Kaolin	Inhalation	Multiple animal species	Not carcinogenic
Ethylbenzene	Inhalation	Multiple animal species	Carcinogenic
Synthetic Amorphous Silica, Fumed, Crystalline Free	Not Specified	Mouse	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
Quartz Silica	Inhalation	Human and animal	Carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Toluene	Inhalation	Some positive female reproductive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 2.3 mg/l	1 generation
Toluene	Ingestion	Toxic to development	Rat	LOAEL 520 mg/kg/day	during gestation
Toluene	Inhalation	Toxic to development	Human	NOAEL Not available	poisoning and/or abuse
Xylene	Ingestion	Not toxic to female reproduction	Mouse	NOAEL 1,000 mg/kg/day	103 weeks
Xylene	Ingestion	Not toxic to male reproduction	Mouse	NOAEL 1,000 mg/kg/day	103 weeks
Xylene	Inhalation	Some positive female reproductive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Xylene	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Mouse	NOAEL Not available	during organogenesis
Xylene	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL Not available	during gestation
Limestone	Ingestion	Not toxic to development	Rat	NOAEL 625 mg/kg/day	premating & during gestation
Ethylbenzene	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 4.3 mg/l	premating & during gestation
Synthetic Amorphous Silica, Fumed, Crystalline Free	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Synthetic Amorphous Silica, Fumed, Crystalline Free	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Synthetic Amorphous Silica, Fumed, Crystalline Free	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis

Lactation

Name	Route	Species	Value
Xylene	Ingestion	Mouse	Does not cause effects on or via lactation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Toluene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Toluene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Toluene	Inhalation	immune system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 0.004 mg/l	3 hours
Toluene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
Xylene	Inhalation	auditory system	Causes damage to organs	Rat	LOAEL 6.3 mg/l	8 hours
Xylene	Inhalation	central nervous	May cause drowsiness or	Human	NOAEL Not	

		system depression	dizziness		available	
Xylene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Xylene	Inhalation	eyes	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 3.5 mg/l	not available
Xylene	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL Not available	
Xylene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	
Xylene	Ingestion	eyes	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 250 mg/kg	not applicable
Limestone	Inhalation	respiratory system	All data are negative	Rat	NOAEL 0.812 mg/l	90 minutes
Ethylbenzene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Ethylbenzene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Toluene	Inhalation	auditory system | nervous system | eyes | olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 2.3 mg/l	15 months
Toluene	Inhalation	heart | liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 11.3 mg/l	15 weeks
Toluene	Inhalation	endocrine system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.1 mg/l	4 weeks
Toluene	Inhalation	immune system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL Not available	20 days
Toluene	Inhalation	bone, teeth, nails, and/or hair	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 1.1 mg/l	8 weeks
Toluene	Inhalation	hematopoietic system | vascular system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Toluene	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 625 mg/kg/day	13 weeks
Toluene	Ingestion	heart	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 600 mg/kg/day	14 days
Toluene	Ingestion	endocrine system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 105 mg/kg/day	28 days
Toluene	Ingestion	immune system	Some positive data exist, but the data are not sufficient for	Mouse	NOAEL 105 mg/kg/day	4 weeks

			classification			
Xylene	Inhalation	nervous system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.4 mg/l	4 weeks
Xylene	Inhalation	auditory system	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 7.8 mg/l	5 days
Xylene	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL Not available	
Xylene	Inhalation	heart | endocrine system | hematopoietic system | muscles | kidney and/or bladder | respiratory system	All data are negative	Multiple animal species	NOAEL 3.5 mg/l	13 weeks
Xylene	Ingestion	auditory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 900 mg/kg/day	2 weeks
Xylene	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,500 mg/kg/day	90 days
Xylene	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL Not available	
Xylene	Ingestion	heart | skin | endocrine system | bone, teeth, nails, and/or hair | hematopoietic system | immune system | nervous system | respiratory system	All data are negative	Mouse	NOAEL 1,000 mg/kg/day	103 weeks
Kaolin	Inhalation	pneumoconiosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL NA	occupational exposure
Kaolin	Inhalation	pulmonary fibrosis	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	
Limestone	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Ethylbenzene	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.1 mg/l	2 years
Ethylbenzene	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 1.1 mg/l	103 weeks
Ethylbenzene	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 3.4 mg/l	28 days
Ethylbenzene	Inhalation	auditory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 2.4 mg/l	5 days
Ethylbenzene	Inhalation	endocrine system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 3.3 mg/l	103 weeks
Ethylbenzene	Inhalation	bone, teeth, nails, and/or hair | muscles	All data are negative	Multiple animal species	NOAEL 4.2 mg/l	90 days
Ethylbenzene	Inhalation	heart | immune system | respiratory system	All data are negative	Multiple animal species	NOAEL 3.3 mg/l	2 years
Ethylbenzene	Ingestion	liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 680 mg/kg/day	6 months
Synthetic Amorphous	Inhalation	respiratory system |	All data are negative	Human	NOAEL Not	occupational

Silica, Fumed, Crystalline Free		silicosis			available	exposure
Titanium Dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.010 mg/l	2 years
Titanium Dioxide	Inhalation	pulmonary fibrosis	All data are negative	Human	NOAEL Not available	occupational exposure
Quartz Silica	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

Name	Value
Toluene	Aspiration hazard
Xylene	Aspiration hazard
Ethylbenzene	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

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:
Not chronically toxic to aquatic life by GHS criteria.

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result
Butadiene-Styrene-Meta-Divinylbenzene Polymer	26471-45-4		Data not available or insufficient for classification			
Coumarone-Indene Resins	63393-89-5		Data not available or insufficient for classification			
Ethylbenzene	100-41-4	Water flea	Experimental	24 hours	Effect Concentration 50%	1.81 mg/l
Ethylbenzene	100-41-4	Rainbow Trout	Experimental	96 hours	Lethal Concentration 50%	4.2 mg/l
Ethylbenzene	100-41-4	Green Algae	Experimental	96 hours	Effect Concentration 50%	3.6 mg/l
Formaldehyde,	68037-42-3		Data not			

Polymer with 4-(1,1-Dimethylethyl) Phenol, Magnesium Oxide Complex			available or insufficient for classification			
Kaolin	1332-58-7		Data not available or insufficient for classification			
Limestone	1317-65-3	Western Mosquitofish	Experimental	96 hours	Lethal Concentration 50%	>100 mg/l
Limestone	1317-65-3	Rainbow Trout	Experimental	21 days	No obs Effect Conc	>100 mg/l
Quartz Silica	14808-60-7		Data not available or insufficient for classification			
Quaternary Ammonium Compounds, Bis(Hydrogenated Tallow Alkyl)Dimethyl, Salts with Montmorillonite	68911-87-5	Water flea	Estimated	48 hours	Effect Concentration 50%	>100 mg/l
Quaternary Ammonium Compounds, Bis(Hydrogenated Tallow Alkyl)Dimethyl, Salts with Montmorillonite	68911-87-5	Green algae	Estimated	72 hours	Effect Concentration 50%	>100 mg/l
Quaternary Ammonium Compounds, Bis(Hydrogenated Tallow Alkyl)Dimethyl, Salts with Montmorillonite	68911-87-5	Zebra Fish	Estimated	96 hours	Lethal Concentration 50%	>100 mg/l
Styrene-Butadiene Polymer	9003-55-8		Data not available or insufficient for classification			
Synthetic Amorphous Silica, Fumed,	112945-52-5	Zebra Fish	Analogous Compound	96 hours	Lethal Concentration 50%	5,000 mg/l

Crystalline Free						
Synthetic Amorphous Silica, Fumed, Crystalline Free	112945-52-5	Water flea	Analogous Compound	48 hours	Effect Concentration 50%	7,600 mg/l
Synthetic Amorphous Silica, Fumed, Crystalline Free	112945-52-5	Green algae	Analogous Compound	72 hours	Effect Concentration 50%	440 mg/l
Titanium Dioxide	13463-67-7	Crustecea other	Experimental	96 hours	Effect Concentration 50%	>300 mg/l
Titanium Dioxide	13463-67-7	Sheepshead Minnow	Experimental	96 hours	Lethal Concentration 50%	>240 mg/l
Titanium Dioxide	13463-67-7	Water flea	Experimental	48 hours	Effect Concentration 50%	>100 mg/l
Titanium Dioxide	13463-67-7	Water flea	Experimental	30 days	No obs Effect Conc	3 mg/l
Titanium Dioxide	13463-67-7	Fish	Experimental	30 days	No obs Effect Conc	>=1,000 mg/l
Toluene	108-88-3	Coho Salmon	Experimental	96 hours	Lethal Concentration 50%	5.5 mg/l
Toluene	108-88-3	Water flea	Experimental	48 hours	Effect Concentration 50%	3.78 mg/l
Toluene	108-88-3	Green Algae	Experimental	72 hours	Effect Concentration 50%	12.5 mg/l
Toluene	108-88-3	Sheepshead Minnow	Experimental	28 days	No obs Effect Conc	3.2 mg/l
Xylene	1330-20-7		Data not available or insufficient for classification			

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Quaternary Ammonium Compounds, Bis(Hydrogenated Tallow Alkyl)Dimethyl, Salts with Montmorillonite	68911-87-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Coumarone-	63393-89-5	Data not	N/A	N/A	N/A	N/A

Indene Resins		available or insufficient for classification				
Formaldehyde, Polymer with 4-(1,1-Dimethylethyl) Phenol, Magnesium Oxide Complex	68037-42-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Styrene-Butadiene Polymer	9003-55-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Butadiene-Styrene-Meta-Divinylbenzene Polymer	26471-45-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Synthetic Amorphous Silica, Fumed, Crystalline Free	112945-52-5	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
Kaolin	1332-58-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Ethylbenzene	100-41-4	Experimental Photolysis		Photolytic half-life (in air)	4.26 days (t 1/2)	Other methods
Xylene	1330-20-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Quartz Silica	14808-60-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Toluene	108-88-3	Experimental Photolysis		Photolytic half-life (in air)	5.38 days (t 1/2)	Other methods
Titanium Dioxide	13463-67-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Quaternary Ammonium	68911-87-5	Data not available or	N/A	N/A	N/A	N/A

Compounds, Bis(Hydrogenated Tallow Alkyl)Dimethyl, Salts with Montmorillonite		insufficient for classification				
Coumarone-Indene Resins	63393-89-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Formaldehyde, Polymer with 4-(1,1-Dimethylethyl) Phenol, Magnesium Oxide Complex	68037-42-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Styrene-Butadiene Polymer	9003-55-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Butadiene-Styrene-Meta-Divinylbenzene Polymer	26471-45-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Synthetic Amorphous Silica, Fumed, Crystalline Free	112945-52-5	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
Kaolin	1332-58-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Ethylbenzene	100-41-4	Experimental BCF - Other		Bioaccumulation Factor	15	Other methods
Xylene	1330-20-7	Experimental BCF - Rainbow Tr	56 days	Bioaccumulation Factor	14	Other methods
Quartz Silica	14808-60-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Toluene	108-88-3	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	2.73	Other methods
Titanium Dioxide	13463-67-7	Experimental BCF - Other	42 days	Bioaccumulation Factor	9.6	Other methods

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

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

Local Regulations

China transport hazard class: Class 3 Flammable liquid

International Regulations

UN No.: UN 1139
UN Proper Shipping Name: Coating Solution
Transport hazard class (IMO): Flammable liquid
Transport hazard class (IATA): Flammable liquid
Packing Group: II
Environmental Hazards:
Not applicable

Special precautions for user
Not applicable.

SECTION 15: Regulatory information

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

This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory.

This safety data sheet is in compliance with the following national standards: GB/T16483-2008 Safety data sheet for chemical products content and order of sections, GB13690-2009 General rule for classification and hazard communication of chemicals, GB15258-2009 General rules for preparation of precautionary label for chemicals, GB6944-2005 Classification and code of dangerous goods, GB/T15098-2008 The principle of classification of transport packaging groups of dangerous goods, GB18218-2009 Identify major source of dangerous chemical, GB190-2009 Packing symbol of dangerous goods, GB/T191-2008 Packaging- Pictorial marking for handling of Goods, GB12268-2012 List of dangerous goods, GA57-1993 Classification and Code of Very Toxic chemical, GBZ/T210.1-2008 Occupational exposure limits for airborne chemical in the workplace, GBZ/T210.2-2008 Occupational exposure limits for airborne dusts in the workplace, GBZ/T210.3-2008 Occupational exposure Limit for physical agents in workplace, as well as the following national regulations: Dangerous

Goods Transport Administrative Regulation, Dangerous Chemicals Safety Administrative Regulation (China State Council Decree No. 591), United Nations Regulations on the Transport of Dangerous Goods (UN RTDG).

For more information, contact the manufacturer listed in Section 1 of this Safety Data Sheet.

SECTION 16: Other information

References
United Nations 'Recommendations on the Transport of Dangerous Goods - Model Regulations '
United Nations 'Globally Harmonized System of Classification and Labelling of Chemicals (GHS)'.

Revision information:
No revision information is available.

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