

SS4155

SAFETY DATA SHEET

1. Identification

Product identifier: SS4155

Other means of identification

Synonyms: SILICON PRIMER MIXTURE

Recommended use and restriction on use

Recommended use: Primer

Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information : Momentive Performance Materials LLC
260 Hudson River Road
Waterford NY 12188

Contact person : commercial.services@momentive.com

Telephone : General information
+1-800-295-2392

Emergency telephone number

Supplier : CHEMTREC
1-800-424-9300

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable liquids Category 3

Health Hazards

Serious Eye Damage/Eye Irritation Category 2A

Specific Target Organ Toxicity -
Single Exposure Category 3¹

Specific Target Organ Toxicity -
Repeated Exposure Category 1²

Aspiration Hazard Category 1

Target Organs

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1. Respiratory tract irritation.
2. Central nervous system.

Unknown toxicity - Health

Acute toxicity, oral	0 %
Acute toxicity, dermal	3.31 %
Acute toxicity, inhalation, vapor	3.31 %
Acute toxicity, inhalation, dust or mist	3.31 %

Label Elements

Hazard Symbol:



Signal Word: Danger

Hazard Statement: Flammable liquid and vapor.
 Causes serious eye irritation.
 May cause respiratory irritation.
 Causes damage to organs through prolonged or repeated exposure.
 May be fatal if swallowed and enters airways.

Precautionary Statement

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Do not breathe dust or mists. Do not eat, drink or smoke when using this product.

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell. In case of fire: Use ... to extinguish.

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Storage: Store in well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification: Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*	Notes
Mineral Spirit	Trade secret	60 - 100%	# This substance has workplace exposure limit(s).
Tetraethyl Silicate, Tetraethoxysilane	78-10-4	15 - 40%	# This substance has workplace exposure limit(s).
1,2,4-TRIMETHYLBENZENE	95-63-6	3 - 7%	# This substance has workplace exposure limit(s).
Silicic acid, ethyl ester	11099-06-2	1 - 5%	No data available.

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Trade secret information: ** A specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Ingestion: Do NOT induce vomiting.

Inhalation: Move into fresh air and keep at rest. Get medical attention.

Skin Contact: Wash area with soap and water. If skin irritation occurs: Get medical advice/attention.

Eye contact: No data available.

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Most important symptoms/effects, acute and delayed

Symptoms: Treatment is symptomatic and supportive.
Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: No data available.

5. Fire-fighting measures

General Fire Hazards: No data available.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: All standard extinguishing agents are suitable.

Unsuitable extinguishing media: No data available.

Specific hazards arising from the chemical: Vapors may travel considerable distance to a source of ignition and flash back.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Flammable Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Warning! Flammable Avoid contact with eyes, skin, and clothing. Keep out of reach of children.

Methods and material for containment and cleaning up: Warn other workers of spill. Wear proper protective equipment as specified in the protective equipment section. Wipe, scrape, or soak up in an inert material and put in a container intended for flammable materials for disposal. Keep unauthorized personnel away.

Environmental Precautions: Do not allow runoff to sewer, waterway or ground.

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7. Handling and storage

Precautions for safe handling: Sensitivity to static discharge is expected; material has a flash point below 200 F.

Conditions for safe storage, including any incompatibilities: Keep away from heat, sparks and open flame. Keep container closed.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
Mineral Spirit	TWA	100 ppm	US. ACGIH Threshold Limit Values (03 2015)
	REL	350 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	Ceil_Time	1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	500 ppm 2,900 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Tetraethyl Silicate, Tetraethoxysilane	TWA	100 ppm 525 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	10 ppm	US. ACGIH Threshold Limit Values (03 2015)
	REL	10 ppm 85 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	100 ppm 850 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
1,2,4-TRIMETHYLBENZENE	TWA	10 ppm 85 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	25 ppm	US. ACGIH Threshold Limit Values (03 2015)
	REL	25 ppm 125 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	TWA	25 ppm 125 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

Appropriate Engineering Controls Use only in well-ventilated areas.

Individual protection measures, such as personal protective equipment

General information: Ventilation and other forms of engineering controls are preferred for controlling exposures. Respiratory protection may be needed for non-routine or emergency situations.

Eye/face protection: Face shield Safety glasses with side shields Monogoggles

Skin Protection
Hand Protection: Chemical resistant gloves

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Other:	Wear suitable protective clothing and eye/face protection.
Respiratory Protection:	Use approved NIOSH respiratory protection if TLV exceeded or overexposure is likely.
Hygiene measures:	No data available.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Blue
Odor:	Faint
Odor threshold:	No data available.
pH:	not applicable
Melting point/freezing point:	< -34 °C
Initial boiling point and boiling range:	not applicable
Flash Point:	36.60 °C (Closed Cup)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	6.00 %(V)
Flammability limit - lower (%):	1.00 %(V)
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Heat of combustion:	No data available.
Vapor pressure:	not applicable
Vapor density:	No data available.
Density:	calculated 0.86 g/cm ³
Relative density:	0.81
Solubility(ies)	
Solubility in water:	Negligible
Solubility (other):	Soluble in toluene
Partition coefficient (n-octanol/water) Log Pow:	No data available.
Auto-ignition temperature:	245.00 °C
Decomposition temperature:	No data available.
SADT:	No data available.
Viscosity, dynamic:	No data available.

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Viscosity, kinematic: No data available.
VOC: 765 g/l

10. Stability and reactivity

Reactivity: No data available.

Chemical Stability: No data available.

Possibility of hazardous reactions: Hazardous polymerisation does not occur.

Conditions to avoid: Keep away from sources of ignition - No smoking. Keep away from sources of ignition - No smoking.

Incompatible Materials: Oxidizing agents.

Hazardous Decomposition Products: Carbon dioxide Silicon dioxide.

11. Toxicological information

Information on likely routes of exposure

Ingestion: No data available.

Inhalation: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Symptoms related to the physical, chemical and toxicological characteristics

Ingestion: No data available.

Inhalation: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product:
ATEmix : 5,198.39 mg/kg

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Specified substance(s):

Tetraethyl Silicate, LD 50 (Rat, No data available.): 6,270 mg/kg
Tetraethoxysilane LD 50: > 2,000 mg/kg

Dermal

Product: not applicable Not classified for acute toxicity based on available data.

Specified substance(s):

Tetraethyl Silicate, LD 50 (Rabbit, No data available.): 5,875 mg/kg
Tetraethoxysilane

Inhalation

Product:
ATEmix : 41.83 mg/l
ATEmix : 5.7 mg/l

Specified substance(s):

Tetraethyl Silicate, TDLo (Rat, No data available.): 1 mg/l
Tetraethoxysilane

Repeated dose toxicity

Product: No data available.

Skin Corrosion/Irritation

Product: No data available.

Serious Eye Damage/Eye Irritation

Product: No data available.

Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

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US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Target Organs

Specific Target Organ Toxicity - Single Exposure: Respiratory tract irritation.

Specific Target Organ Toxicity - Repeated Exposure: Central nervous system.

Aspiration Hazard

Product: No data available.

Other effects: None.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Tetraethyl Silicate, LC100 (No data available., 24 h): 9,000 mg/l
Tetraethoxysilane LC50 (Brachydanio rerio, 96 h): > 245 mg/l

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Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Tetraethyl Silicate, EC50 (Blue Crab): 7,800 mg/l
Tetraethoxysilane

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s):

Tetraethyl Silicate, 98 % (28 d, OECD-Guideline 301 A (DOC Die-Away Test)) Readily
Tetraethoxysilane biodegradable

BOD/COD Ratio

Product: No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in Soil: No data available.

Known or predicted distribution to environmental compartments

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Mineral Spirit	No data available.
Tetraethyl Silicate, Tetraethoxysilane	No data available.
1,2,4- TRIMETHYLBENZENE	No data available.
Silicic acid, ethyl ester	No data available.

Known or predicted distribution to environmental compartments

1-butanol, titanium(4+)salt	No data available.
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Other Adverse Effects: No data available.

13. Disposal considerations

Disposal instructions: Disposal should be made in accordance with federal, state and local regulations.

Contaminated Packaging: Dispose of as unused product.

14. Transport information

DOT

UN Number:	UN 1993
UN Proper Shipping Name:	Flammable liquids, n.o.s.(SOLVENT NAPHTHA, TETRAETHYL SILICATE)
Transport Hazard Class(es)	
Class:	3
Label(s):	3
Packing Group:	III
Marine Pollutant:	No

IMDG

UN Number:	UN 1993
UN Proper Shipping Name:	FLAMMABLE LIQUID, N.O.S.(SOLVENT NAPHTHA, TETRAETHYL SILICATE)
Transport Hazard Class(es)	
Class:	3
Label(s):	3
EmS No.:	F-E, S-E
Packing Group:	III
Marine Pollutant:	No
Limited quantity	5.00L
Excepted quantity	E1

IATA

UN Number:	UN 1993
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Proper Shipping Name:	Flammable liquid, n.o.s.(SOLVENT NAPHTHA, TETRAETHYL SILICATE)
Transport Hazard Class(es):	
Class:	3
Label(s):	3
Packing Group:	III
Cargo aircraft only Packing Instructions:	366
Passenger and cargo aircraft Packing Instructions:	366
Limited quantity:	10.00L
Packing Instructions:	Y344
Excepted quantity	E1
Environmental Hazards:	Not regulated.
Marine Pollutant:	No

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Fire Hazard

Acute Health Hazard

Fire Hazard

Immediate (Acute) Health Hazards

Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

None present or none present in regulated quantities.

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SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Mineral Spirit	10000 lbs
Tetraethyl Silicate, Tetraethoxysilane	10000 lbs
1,2,4- TRIMETHYLBENZENE	10000 lbs
Silicic acid, ethyl ester	10000 lbs

SARA 313 (TRI Reporting)

<u>Chemical Identity</u>	<u>Reporting threshold for other users</u>	<u>Reporting threshold for manufacturing and processing</u>
1,2,4- TRIMETHYLBENZENE		

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Ethanol

Developmental toxin.

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity

Mineral Spirit
Tetraethyl Silicate, Tetraethoxysilane
1-butanol, titanium(4+)salt
1,2,4-TRIMETHYLBENZENE
Silicic acid, ethyl ester

US. Massachusetts RTK - Substance List

Chemical Identity

Tetraethyl Silicate, Tetraethoxysilane
1,2,4-TRIMETHYLBENZENE

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US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Mineral Spirit
 Tetraethyl Silicate, Tetraethoxysilane
 1,2,4-TRIMETHYLBENZENE
 Silicic acid, ethyl ester

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

Inventory Status:

Australia AICS:	y (positive listing)	Remarks: None.
EU EINECS List:	y (positive listing)	Remarks: None.
Japan (ENCS) List:	y (positive listing)	Remarks: None.
China Inventory of Existing Chemical Substances:	y (positive listing)	Remarks: None.
Korea Existing Chemicals Inv. (KECI):	y (positive listing)	Remarks: None.
Canada DSL Inventory List:	y (positive listing)	Remarks: None.
Canada NDSL Inventory:	n (Negative listing)	Remarks: None.
New Zealand Inventory of Chemicals:	n (Negative listing)	Remarks: None.
Philippines PICCS:	y (positive listing)	Remarks: None.
US TSCA Inventory:	y (positive listing)	Remarks: None.
Taiwan. Taiwan inventory (CSNN):	y (positive listing)	Remarks: None.

16. Other information, including date of preparation or last revision

HMIS Hazard ID

Health	*	3
Flammability	3	
Physical Hazards	1	
PERSONAL PROTECTION		

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

Issue Date: 09/09/2016
Revision Date: No data available.
Version #: 1.11

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Further Information: No data available.

Disclaimer:

Notice to reader

Unless otherwise specified in section 1, Momentive products are intended for use in the manufacture and/or formulation of products and are not intended for direct consumer use. These products are not intended for long-lasting (> 30 days) implantation, injection or direct ingestion into the human body, nor for use in the manufacture of multiple use contraceptives. Keep out of the reach of children.

Further Information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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