

SSG4710B

SAFETY DATA SHEET

1. Identification

Product identifier: SSG4710B

Other means of identification

Synonyms: PASTE CATALYST B (GREY)

Recommended use and restriction on use

Recommended use: Automotive application.

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

Health Hazards

Serious Eye Damage/Eye Irritation	Category 1
Skin sensitizer	Category 1
Toxic to reproduction	Category 1B

Label Elements

Hazard Symbol:



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Signal Word: Danger

Hazard Statement: Causes serious eye damage.
May cause an allergic skin reaction.
May damage fertility or the unborn child.

Precautionary Statement

Prevention: Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

Response: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Immediately call a POISON CENTER/doctor. Specific treatment (see this label). Wash contaminated clothing before reuse.

Storage: 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: None.

3. Composition/information on ingredients
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Mixtures

Chemical Identity	CAS number	Content in percent (%)*	Notes
gamma-Aminopropyltriethoxysilane	919-30-2	10 - 30%	No data available.
SILICIC ACID, TETRAPROPYL ESTER, Silicic acid (H ₄ SiO ₄) , tetrapropyl ester	682-01-9	5 - 10%	No data available.
Tris(3(trimethoxysilyl)propyl)isocyanurate	26115-70-8	5 - 10%	No data available.
Carbon Black	1333-86-4	1 - 5%	# This substance has workplace exposure limit(s).
DIBUTYL TINOXIDE (48% as Tin)	818-08-6	0.5 - 1.5%	# This substance has workplace exposure limit(s).
DIISOCTYLPHTHALATE	27554-26-3	0.5 - 1.5%	No data available.
Octamethylcyclotetrasiloxane	556-67-2	0.1 - 1%	No data available.

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

(1) The respirable particle(s) listed above are inextricably bound within the polymer matrix, and therefore does not present an inhalation hazard during normal use of this product. Tooling or machining of the cured product (sanding, cutting, milling) may release hazardous, respirable substances.

4. First-aid measures

Ingestion: Do NOT induce vomiting.

Inhalation: Move to fresh air. Consult a physician after significant exposure.

Skin Contact: Wash off immediately with plenty of water for at least 15 minutes. Take off immediately all contaminated clothing. Get medical attention if symptoms persist.

Eye contact: No data available.

Most important symptoms/effects, acute and delayed

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Symptoms: This product is a corrosive material. Gastric lavage or emesis may be contraindicated. Ingestion or inhalation may result in shock, decreased blood pressure, pulmonary edema, CNS depression, edema of the glottis with asphyxia, and perforation of the esophagus or stomach. Inhalation of vapors or fumes may result in coughing, choking, and CNS effects followed after a 6-8 hour latent period by pulmonary edema with tightness in the chest, air hunger, dizziness, frothy sputum, and cyanosis. Physical findings may include moist rales, low blood pressure, and high pulse pressure. Hemoptysis and dyspnea may continue for several weeks. Prednisolone may reduce esophageal stricture formation.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: No data available.

5. Fire-fighting measures

General Fire Hazards: Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

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: Pay attention to the corrosive effects arising from contact with water.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: Keep away from combustible material. When using do not smoke. Do not empty into drains.

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

6. Accidental release measures

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**Personal precautions,
protective equipment and
emergency procedures:**

Avoid contact with eyes, skin, and clothing. Use only in well-ventilated areas. Keep out of reach of children. Attention: Not for injection into humans.

**Methods and material for
containment and cleaning
up:**

Take up with an absorbent for chemicals or, otherwise use dry sand. Sweep up or vacuum up spillage and collect in suitable container for disposal. Wipe, scrape or soak up in an inert material and put in a container for disposal. Wear proper protective equipment as specified in the protective equipment section. Warn other workers of spill. Keep unauthorized personnel away.

Environmental Precautions:

Do not allow runoff to sewer, waterway or ground.

7. Handling and storage

Precautions for safe handling:

Sensitivity to static discharge is expected; material has a flash point below 200 F. Provide adequate general and local exhaust ventilation.

**Conditions for safe storage,
including any
incompatibilities:**

Keep container tightly closed and in a well-ventilated place. Store in original container.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
Carbon Black - Inhalable fraction.	TWA	3 mg/m ³	US. ACGIH Threshold Limit Values (03 2015)
Carbon Black	REL	0.1 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	REL	3.5 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	3.5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	3.5 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
DIBUTYL TINOXIDE (48% as Tin) - as Sn	STEL	0.2 mg/m ³	US. ACGIH Threshold Limit Values (03 2015)
	TWA	0.1 mg/m ³	US. ACGIH Threshold Limit Values (03 2015)
	REL	0.1 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	0.1 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	0.1 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

This product contains one or more substances with an occupational exposure limit. However, the respirable particle(s) of this/these substance(s) are inextricably bound within the polymer matrix. Therefore, we do not

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expect an exposure to this/these substance(s) during normal use of this product. Tooling or machining of the cured product (sanding, cutting, milling) may release hazardous, respirable substances.

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: Monogoggles

Skin Protection

Hand Protection: Rubber or plastics gloves

Other: Wear suitable protective clothing and eye/face protection.

Respiratory Protection: Use only in well-ventilated areas.

Hygiene measures: Avoid contact with eyes, skin, and clothing. Wash hands after handling. When using do not eat, drink or smoke.

9. Physical and chemical properties

Appearance

Physical state: solid

Form: Paste

Color: Black

Odor: amine like

Odor threshold: No data available.

pH: not applicable

Melting point/freezing point: ca. -29.00 °C

Initial boiling point and boiling range: not applicable

Flash Point: > 63 °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 (%): No data available.

Flammability limit - lower (%): No data available.

Explosive limit - upper (%): No data available.

Explosive limit - lower (%): No data available.

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Heat of combustion:	No data available.
Vapor pressure:	not applicable
Vapor density:	No data available.
Density:	ca. 1 g/cm ³
Relative density:	ca. 1.00
Solubility(ies)	
Solubility in water:	Reactive.
Solubility (other):	Hexanes
Partition coefficient (n-octanol/water) Log Pow:	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
SADT:	No data available.
Viscosity, dynamic:	No data available.
Viscosity, kinematic:	No data available.
VOC:	185 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 any contact with water.
Incompatible Materials:	Reacts with water liberating small amounts of methanol. Reacts with water forming ethanol. Avoid contact with acids and oxidizing substances.
Hazardous Decomposition Products:	Carbon dioxide Formaldehyde. Amines. Silicon dioxide. Toxic metal fumes. Tin fumes. Ethanol. Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation.

11. Toxicological information

General information:	Experience has shown, that the above mentioned product can be used without any danger to health, as long as the usual conditions of industrial hygiene are observed.
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Information on likely routes of exposure

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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: No data available.

Specified substance(s):

Tris(3(trimethoxysilyl)propyl)isocyanurate LD 50 (Rat, No data available.): 2,346 mg/kg

DIBUTYL TINOXIDE LD 50 (Rat): 487 mg/kg
(48% as Tin)

Octamethylcyclotetrasiloxane LD 50 (Rat): 4,800 mg/kg
LD 50 (Mouse): 1,700 mg/kg

Dermal

Product: No data available.

Specified substance(s):

Tris(3(trimethoxysilyl)propyl)isocyanurate LD 50 (Rabbit, No data available.): 18,000 mg/kg

Octamethylcyclotetrasiloxane LD 50 (Rat): 2,400 mg/kg

Inhalation

Product: No data available.

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Specified substance(s):

Octamethylcyclotetrasiloxane LC50 (Rat): 12.1 mg/l
LC50 (Rat): 36 mg/l

Repeated dose toxicity

Product: No data available.

Specified substance(s):

gamma-Aminopropyltriethoxysilane NOAEL (Rat, Oral, 90 d): 200 mg/kg

Skin Corrosion/Irritation

Product: OECD-Guideline 404 (Acute Dermal Irritation/Corrosion) (Rabbit, 4 h): The health hazard evaluation is based on the toxicological properties of a similar material.

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:

Carbon Black Overall evaluation: 2B. Possibly carcinogenic to humans.

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

No carcinogenic components identified

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

No carcinogenic components identified

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Germ Cell Mutagenicity

In vitro

Product: No data available.

Specified substance(s):

gamma-Aminopropyltriethoxysilane
Ames-Test: negative
Chinese Hamster Ovary (CHO): negative

Specified substance(s):

Octamethylcyclotetrasiloxane
Ames-Test (OECD-Guideline 471 (Genetic Toxicology: Salmonella typhimurium, Reverse Mutation Assay)): negative (not mutagenic)
Mouse Lymphoma Assay (OECD Guideline 476): negative (not mutagenic)

In vivo

Product: No data available.

Specified substance(s):

gamma-Aminopropyltriethoxysilane
Micronucleus test (mouse): negative

Specified substance(s):

Octamethylcyclotetrasiloxane
Chromosomal aberration (OECD-Guideline 474 (Genetic Toxicology: Micronucleus Test)) Inhalation (Rat, male and female): negative

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.

Aspiration Hazard

Product: No data available.

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Other effects:

Product releases amine vapors during cure. Contains dibutyltin compound(s) - May impair fertility. May cause harm to unborn child. Octamethylcyclotetrasiloxane (D4) Ingestion: Rodents given large doses via oral gavage of Octamethylcyclotetrasiloxane (1600mg/kg/day, 14 days), developed increased liver weights relative to unexposed control animals due to hepatocellular hyperplasia (increased number of liver cells which appear normal) as well as hypertrophy (increased cell size). Inhalation: In inhalation studies, laboratory rodents exposed to Octamethylcyclotetrasiloxane (300 ppm five days/week, 90 days) developed increased liver weights in female animals relative to unexposed control animals. When the exposure was stopped, liver weights returned to normal. Microscopic examination of the liver cells did not show any evidence of pathology. This response in rats, which does not affect the animal's health, is well-documented and widely recognized. It is related to an increase of liver enzymes that metabolize and eliminate a material from the body. The increased liver weight reverses even while the D4 exposure continues. The finding is not adverse, but is considered a natural adaptive change in rats, and does not represent a hazard to humans. Inhalation studies utilizing laboratory rabbits and guinea pigs showed no effects on liver weights. Inhalation exposures typical of industrial usage (5-10 ppm) showed no toxic effects in rodents. Range finding reproductive studies were conducted (whole body inhalation, 70 days prior to mating, through mating, gestation and lactation), with D4. Rats were exposed to 70 and 700 ppm. In the 700 ppm group, there was a statistically significant reduction in mean litter size and in implantation sites. No D4 related clinical signs were observed in the pups and no exposure related pathological findings were found. A two-year, combined chronic/carcinogenicity study, during which rats were exposed to D4 by inhalation, data showed a statistically significant increase in a benign uterine tumor in female rats exposed at the highest level--a level much higher than the low levels that consumers or workers may encounter. An expert panel of independent scientists who have reviewed the results of this research concur that the finding seen in the two-year study occurred through a biological pathway that is specific to the rat and is not relevant to humans. Therefore, this observed effect does not indicate a potential health hazard to humans. In developmental toxicity studies, rats and rabbits were exposed to D4 at concentrations up to 700 ppm and 500 ppm, respectively. No teratogenic effects (birth defects) were observed in either study.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product:

No data available.

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Specified substance(s):

gamma-
Aminopropyltriethoxysilan
e LC50 (Brachydanio rerio, 96 h): > 934 mg/l

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

gamma-
Aminopropyltriethoxysilan
e EC50 (Daphnia magna, 48 h): 331 mg/l

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.

Specified substance(s):

gamma-
Aminopropyltriethoxysilan
e EC50 (Desmodesmus subspicatus (green algae), 72 h): > 1,000 mg/l
NOEC (Desmodesmus subspicatus (green algae), 72 h): 1.3 mg/l

Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s):

gamma-
Aminopropyltriethoxysilan
e 67 % (28 d) Not readily degradable. hydrolyses

Octamethylcyclotetrasilox
ane 3.7 % (29 d, 310 Ready Biodegradability - CO₂ in Sealed Vessels
(Headspace Test)) Not readily biodegradable.

BOD/COD Ratio

Product: No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

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Product: No data available.

Specified substance(s):

Octamethylcyclotetrasiloxane Fathead Minnow, Bioconcentration Factor (BCF): 12.40

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in Soil: No data available.

Known or predicted distribution to environmental compartments

gamma-Aminopropyltriethoxysilane No data available.

SILICIC ACID, TETRAPROPYL ESTER, No data available.

Silicic acid (H₄SiO₄), tetrapropyl ester

Tris(3(trimethoxysilyl)propyl)isocyanurate No data available.

Carbon Black No data available.

DIBUTYL TINOXIDE (48% as Tin) No data available.

DIISOCTYLPHthalate No data available.

Octamethylcyclotetrasiloxane No data available.

Known or predicted distribution to environmental compartments

SILOXANES AND SILICONES, DI-ME No data available.

Treated Fumed Silica No data available.

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

Not regulated.

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IMDG

Not regulated.

IATA

Not regulated.

Special precautions for user:

This product is not regarded as dangerous goods according to the national and international regulations on the transport of dangerous goods.

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

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>
gamma-Aminopropyltriethoxysilane	10000 lbs
SILICIC ACID, TETRAPROPYL ESTER, Silicic acid (H ₄ SiO ₄) , tetrapropyl ester	10000 lbs
Tris(3(trimethoxysilyl)propyl)isocyanurate	10000 lbs
Carbon Black	10000 lbs
DIBUTYL TINOXIDE (48% as Tin)	10000 lbs
DIISOCTYLPHTHALATE	10000 lbs
Octamethylcyclotetrasiloxane	10000 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

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.

Carbon Black	Carcinogenic.
Ethanol	Developmental toxin.

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

<u>Chemical Identity</u>
SILOXANES AND SILICONES, DI-ME
gamma-Aminopropyltriethoxysilane
Treated Fumed Silica
SILICIC ACID, TETRAPROPYL ESTER, Silicic acid (H ₄ SiO ₄) , tetrapropyl ester
Tris(3(trimethoxysilyl)propyl)isocyanurate
Carbon Black
SILOXANES AND SILICONES, DI-ME
gamma-Aminopropyltriethoxysilane
Treated Fumed Silica
SILICIC ACID, TETRAPROPYL ESTER, Silicic acid (H ₄ SiO ₄) , tetrapropyl ester

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Tris(3(trimethoxysilyl)propyl)isocyanurate

US. Massachusetts RTK - Substance List

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

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Carbon Black

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: The mixture contains a polymer. The monomers for this polymer have been notified.
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.
Philippines PICCS:	y (positive listing)	Remarks: None.
US TSCA Inventory:	y (positive listing)	Remarks: On TSCA Inventory
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		2
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: 09/27/2016

Revision Date: No data available.

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Version #: 2.5
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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