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		Print Date: 6/1/2015
		SDS Number: 000000093522
PLIOGRIP PANEL 90 220ML		Version: 1.1
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29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Trade name : PLIOGRIP PANEL 90 220ML

Recommended use of the chemical and restrictions on use

Use of the Substance/Mixture : Adhesives
Industrial chemical

Details of the supplier of the safety data sheet Ashland P.O. Box 2219 Columbus, OH 43216 United States of America EHS Customer Requests@ashland.com	Emergency telephone number 1-800-ASHLAND (1-800-274-5263) Regulatory Information Number 1-800-325-3751 Product Information 614-790-3333
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SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Skin corrosion : Category 1
 Serious eye damage : Category 1
 Skin sensitization : Category 1
 Carcinogenicity : Category 1A
 Reproductive toxicity : Category 1B

GHS Label element

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Causes serious eye damage.

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May cause cancer.
May damage fertility or the unborn child.

Precautionary Statements

: **Prevention:**

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
Wash skin thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
IF exposed or concerned: Get medical advice/ attention.
If skin irritation or rash occurs: Get medical advice/ attention.
Wash contaminated clothing before reuse.

Storage:

Store locked up.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

PART A

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Classification	Concentration (%)
POLYMER	800986-5211P	Skin Sens. 1B; H317	>= 50.00 - < 60.00
EPOXY RESIN MODIFIER	800986-5520P	Skin Irrit. 2; H315 Eye Irrit. 2A; H319	>= 10.00 - < 15.00

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		Skin Sens. 1; H317	
ORGANOSILOXANE	800986-5522P	Eye Dam. 1; H318	>= 1.50 - < 5.00

The identity of one or more component(s) is being withheld under business confidentiality.

SILICA VITREOUS	60676-86-0		16.50
CARBON BLACK	1333-86-4	Carc. 2; H351	0.40
CRISTOBALITE	14464-46-1	Carc. 1A; H350 STOT RE 1; H372	0.14

PART B

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Classification	Concentration (%)
AROMATIC AMINE	800986-5525P	Acute Tox. 4; H302 Skin Corr. 1; H314 Eye Dam. 1; H318 Repr. 1B; H360	>= 1.50 - < 5.00

The identity of one or more component(s) is being withheld under business confidentiality.

SILICA VITREOUS	60676-86-0		14.73
DIETHYLENE GLYCOL DI(AMINOPROPYL)ETHER	4246-51-9	Skin Corr. 1; H314 Eye Dam. 1; H318	14.13

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		Skin Sens. 1; H317	
2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL	90-72-2	Skin Corr. 1; H314 Eye Dam. 1; H318	7.11
METHYLPENTAMETHYLENEDIAMINE	15520-10-2	Flam. Liq. 4; H227 Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Corr. 1A; H314 Eye Dam. 1; H318 STOT SE 3; H335	1.58
BIS(DIMETHYLLAMINOETHYL)PHENOL	71074-89-0	Skin Corr. 1; H314 Eye Dam. 1; H318	1.18
CRISTOBALITE	14464-46-1	Carc. 1A; H350 STOT RE 1; H372	0.13

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : Move to fresh air.
Keep patient warm and at rest.
If unconscious place in recovery position and seek medical advice.

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If symptoms persist, call a physician.

- In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.
If on skin, rinse well with water.
Wash contaminated clothing before re-use.
- In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
- If swallowed : Get medical attention immediately.
Do NOT induce vomiting.
Rinse mouth with water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : This product contains methanol which can cause intoxication and central nervous system depression. Methanol is metabolized to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used to prevent methanol metabolism. Ethanol administration is indicated in symptomatic patients or at blood methanol concentrations above 20 ug/dl. Methanol is effectively removed by hemodialysis.
Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:
stomach or intestinal upset (nausea, vomiting, diarrhea)
irritation (nose, throat, airways)
Drowsiness
May cause an allergic skin reaction.
Causes serious eye damage.
May cause cancer.
May damage fertility or the unborn child.
Causes severe burns.
- Notes to physician : No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam
Carbon dioxide (CO2)

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Dry chemical

Unsuitable extinguishing media : High volume water jet

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : carbon dioxide and carbon monoxide
Hydrocarbons
phenols
Nitrogen oxides (NOx)
Ammonia
Hydrogen
formaldehyde
acid vapors
carboxylic acids
Methanol
silicone polymers
silicon dioxide
various hydrocarbons
nitrogen oxides (NOx)

Specific extinguishing methods :

Product is compatible with standard fire-fighting agents.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

Other information : Comply with all applicable federal, state, and local regulations.

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SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not breathe vapours/dust.
Do not smoke.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Container hazardous when empty.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

PART A

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
SILICA VITREOUS	60676-86-0	REL	6 mg/m ³	NIOSH/GUID E
		TWA	0.8 mg/m ³	Z3
		TWA	0.1 mg/m ³ Respirable dust.	TN OEL
		TWA	0.1 mg/m ³ Respirable dust.	Z1A
		TWA PEL	0.1 mg/m ³ Respirable dust.	US CA OEL
		ST ESL	27 µg/m ³ Particulate.	TX ESL
		AN ESL	2 µg/m ³ Particulate.	TX ESL
CARBON BLACK	1333-86-4	REL	0.1 mg/m ³	NIOSH/GUID E
		REL	3.5 mg/m ³	NIOSH/GUID E

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		PEL	3.5 mg/m3	OSHA_TRANS
		TWA	3 mg/m3 Inhalable fraction.	ACGIH
CRISTOBALITE	14464-46-1	TWA	0.025 mg/m3 Respirable fraction.	ACGIH
		TWA	0.15 mg/m3 Total dust.	Z3
		TWA	0.05 mg/m3 Respirable.	Z3
		TWA	0.05 mg/m3 Respirable dust.	Z1A
		REL	5 mg/m3 Fiber, total	NIOSH/GUIDE
		REL	5 mg/m3 fibers, total dust	NIOSH/GUIDE
		REL	3 fibre/cm3 Dust	NIOSH/GUIDE
		REL	3 fibre/cm3 Fiber.	NIOSH/GUIDE

PART B

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
SILICA VITREOUS	60676-86-0	REL	6 mg/m3	NIOSH/GUIDE
		TWA	0.8 mg/m3	Z3
		TWA	0.1 mg/m3 Respirable dust.	TN OEL
		TWA	0.1 mg/m3 Respirable dust.	Z1A
		TWA PEL	0.1 mg/m3 Respirable dust.	US CA OEL
		ST ESL	27 µg/m3 Particulate.	TX ESL
		AN ESL	2 µg/m3 Particulate.	TX ESL
CRISTOBALITE	14464-46-1	TWA	0.025 mg/m3 Respirable fraction.	ACGIH
		TWA	0.15 mg/m3 Total dust.	Z3
		TWA	0.05 mg/m3 Respirable.	Z3
		TWA	0.05 mg/m3 Respirable dust.	Z1A
		REL	5 mg/m3	NIOSH/GUIDE

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			Fiber, total	E
		REL	5 mg/m3 fibers, total dust	NIOSH/GUID E
		REL	3 fibre/cm3 Dust	NIOSH/GUID E
		REL	3 fibre/cm3 Fiber.	NIOSH/GUID E

Engineering measures : Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

Hand protection
Remarks

: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection

: Wear chemical splash goggles and face shield when there is potential for exposure of the eyes or face to liquid, vapor or mist.
Maintain eye wash station in immediate work area.

Skin and body protection

: Wear as appropriate:
impervious clothing
Chemical resistant apron
Safety shoes
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Discard gloves that show tears, pinholes, or signs of wear.
Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures

: Wash hands before breaks and at the end of workday.
When using do not eat or drink.
Ensure that eyewash stations and safety showers are close to the workstation location.
When using do not smoke.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

PART A

Appearance	: viscous
Physical state	: liquid
Colour	: black
Odour	: No data available
Odour Threshold	: No data available
pH	: No data available
	: No data available
Boiling point/boiling range	: > 302 °F / > 150 °C
Flash point	: > 210 °F / > 99 °C Method: Seta closed cup
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: < 0.1 hPa (20 °C)
Relative vapour density	: No data available
Relative density	: 1.089 (20 °C)
Density	: 1.089 g/cm ³ (20 °C)
Solubility(ies)	
Water solubility	: insoluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Thermal decomposition	: No data available

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Viscosity
 Viscosity, dynamic : No data available
 Viscosity, kinematic : > 10,000 mm²/s (40 °C)

Oxidizing properties : No data available

PART B

Appearance : viscous
 Physical state : liquid
 Colour : tan
 Odour : very faint, amine-like
 Odour Threshold : No data available
 pH : No data available
 : No data available
 : No data available
 Flash point : > 200.1 °F / > 93.4 °C
 Method: Seta closed cup
 Evaporation rate : No data available
 Flammability (solid, gas) : No data available
 Upper explosion limit : No data available
 Lower explosion limit : No data available
 Vapour pressure : < 10 hPa (20 °C)
 Relative vapour density : > 1 (Air = 1.0)
 Relative density : 1.13 (25 °C)
 Density : 1.13 g/cm³ (20 °C)
 Solubility(ies)
 Water solubility : practically insoluble
 Solubility in other solvents : No data available

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Partition coefficient: n-octanol/water : No data available

Thermal decomposition : No data available

Viscosity
 Viscosity, dynamic : No data available

Viscosity, kinematic : > 10,000 mm²/s (40 °C)

Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous reactions : Product will not undergo hazardous polymerization.

Conditions to avoid : excessive heat
 heat
 Exposure to air.
 Exposure to moisture

Incompatible materials : None known.
 Acids
 Amines
 Bases
 fluorides
 Oxidizing agents
 peroxides
 water
 Peroxides

Hazardous decomposition products : carbon dioxide and carbon monoxide
 formaldehyde-like
 Hydrocarbons
 Methanol
 Nitrogen oxides (NO_x)
 phenols
 silicone polymers
 Ammonia
 nitrogen oxides
 silicon dioxide
 various hydrocarbons

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SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation
Skin contact
Eye Contact
Ingestion

Acute toxicity

Not classified based on available information.

Components:

POLYMER:

Acute oral toxicity : LD 50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 420
Assessment: No adverse effect has been observed in acute oral toxicity tests.

Acute dermal toxicity : LD 50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: Not classified as acutely toxic by dermal absorption under GHS.

ALIPHATIC AMINE:

Acute oral toxicity : LD 50 (Rat): ca. 3,160 mg/kg

Acute dermal toxicity : LD 50 (Rabbit): Estimated > 2,500 mg/kg

LD 50 (Rat): > 2,150 mg/kg
Method: OECD Test Guideline 402

EPOXY RESIN CURING AGENT:

Acute oral toxicity : LD 50 (Rat): 2,169 mg/kg
Method: OECD Test Guideline 401

AROMATIC AMINE:

Acute oral toxicity : LD 50 (Rat): ca. 970 mg/kg

ORGANOSILOXANE:

Acute oral toxicity : LD 50 (Rat): 8,025 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC 50 (Rat): > 5.3 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute dermal toxicity : LD 50 (Rabbit): 4,250 mg/kg

Components:

METHYLPENTAMETHYLENEDIAMINE:

Acute oral toxicity : LD50 (Rat, male): 1,690 mg/kg
Method: OECD Test Guideline 401
GLP: no

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Acute inhalation toxicity : LC50 (Rat, male and female): 4.9 mg/l
 Exposure time: 1 h
 Test atmosphere: dust/mist
 Method: OECD Test Guideline 403
 GLP: yes

Acute dermal toxicity : LD50 (Rat, male and female): 1,870 mg/kg
 Method: OECD Test Guideline 402
 GLP: no
 Remarks: Information given is based on data obtained from similar substances.

CARBON BLACK:
 Acute oral toxicity : LD 50 (Rat): > 10,000 mg/kg

Acute dermal toxicity : LD 50 (Rabbit): > 3 g/kg

Skin corrosion/irritation

Causes severe burns.

Product:

Remarks: May cause skin irritation in susceptible persons., Causes severe skin burns and eye damage.

Components:

POLYMER:

Result: Slightly irritating to skin

ALIPHATIC AMINE:

Result: Corrosive to skin

EPOXY RESIN MODIFIER:

Result: Irritating to skin

EPOXY RESIN CURING AGENT:

Result: Corrosive to skin

AROMATIC AMINE:

Species: Rabbit

Result: Corrosive to skin

ORGANOSILOXANE:

Result: Slightly irritating to skin

Components:

SILICA VITREOUS:

Result: Possibly irritating to skin

METHYLPENTAMETHYLENEDIAMINE:

Species: Rabbit

Method: OECD Test Guideline 404

Result: Corrosive after 3 minutes or less of exposure

BIS(DIMETHYLLAMINOETHYL)PHENOL:

Result: Corrosive to skin

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CARBON BLACK:
Result: Not irritating to skin

CRISTOBALITE:
Result: Possibly irritating to skin

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Remarks: May cause irreversible eye damage.

Components:

POLYMER:
Result: Slightly irritating to eyes

ALIPHATIC AMINE:
Result: Corrosive to eyes

EPOXY RESIN MODIFIER:
Result: Irritating to eyes

EPOXY RESIN CURING AGENT:
Result: Corrosive to eyes

AROMATIC AMINE:
Species: Rabbit
Result: Corrosive to eyes

ORGANOSILOXANE:
Result: Irreversible effects on the eye

Components:

SILICA VITREOUS:
Result: Possibly irritating to eyes

METHYLPENTAMETHYLENEDIAMINE:
Species: Rabbit
Result: Corrosive to eyes

BIS(DIMETHYLLAMINOETHYL)PHENOL:
Result: Corrosive to eyes

CARBON BLACK:
Result: Slightly irritating to eyes

CRISTOBALITE:
Result: Possibly irritating to eyes

Respiratory or skin sensitisation

Skin sensitisation: May cause an allergic skin reaction.

Respiratory sensitisation: Not classified based on available information.

Components:

POLYMER:

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Test Type: Local lymph node assay
Method: OECD Test Guideline 429
Result: The product is a skin sensitiser, sub-category 1B.

ALIPHATIC AMINE:
Assessment: May cause sensitization by skin contact.

EPOXY RESIN MODIFIER:
Result: May cause sensitization by skin contact.

ORGANOSILOXANE:
Species: Guinea pig
Assessment: Did not cause sensitisation on laboratory animals.

Components:
METHYLPENTAMETHYLENEDIAMINE:
Species: Guinea pig
Assessment: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity
Not classified based on available information.

Components:
POLYMER:

Genotoxicity in vitro : Test Type: in vitro assay
Test species: Rodent cell line
Metabolic activation: without metabolic activation
Result: positive

: Test Type: in vitro assay
Test species: Rodent cell line
Metabolic activation: with metabolic activation
Result: negative

: Test Type: Ames test
Metabolic activation: with and without metabolic activation
Result: negative

Genotoxicity in vivo : Test Type: in vivo assay
Test species: Mouse (male)
Application Route: Ingestion
Result: negative

AROMATIC AMINE:
Genotoxicity in vitro : Test Type: unscheduled DNA synthesis assay
Test species: rat hepatocytes
Method: OECD Test Guideline 482
Result: negative

: Test Type: Ames test
Test species: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

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: Test Type: In vitro mammalian cell gene mutation test
 Test species: Chinese hamster lung cells
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 476
 Result: negative
 GLP: yes

Genotoxicity in vivo : Test Type: Micronucleus test
 Test species: Mouse
 Method: OECD Test Guideline 474
 Result: negative
 GLP: yes

ORGANOSILOXANE:
 Genotoxicity in vitro

: Test Type: Ames test
 Test species: Salmonella typhimurium
 Metabolic activation: with and without metabolic activation
 Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)
 Result: positive

: Test species: mouse lymphoma cells
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 476
 Result: positive

: Test species: Chinese hamster ovary cells
 Method: OECD Test Guideline 479
 Result: positive

Genotoxicity in vivo : Test Type: In vivo micronucleus test
 Test species: Mouse (male and female)
 Cell type: Bone marrow
 Application Route: Intraperitoneal
 Method: OECD Test Guideline 474
 Result: positive

Components:

METHYLPENTAMETHYLENEDIAMINE:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
 Test species: Human lymphocytes
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
 Result: negative
 GLP: yes

: Test species: mouse lymphoma cells
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 476
 Result: negative
 GLP: yes

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Genotoxicity in vivo : Test Type: In vivo micronucleus test
 Test species: Mouse (male and female)
 Application Route: inhalation (dust/mist/fume)
 Method: OECD Test Guideline 474
 Result: negative
 GLP: yes
 Remarks: Information given is based on data obtained from similar substances.

Carcinogenicity

May cause cancer.

Components:

CARBON BLACK:

Carcinogenicity - Assessment : Limited evidence of carcinogenicity in inhalation studies with animals.

CRISTOBALITE:

Carcinogenicity - Assessment : Human carcinogen.

Reproductive toxicity

May damage fertility or the unborn child.

Components:

AROMATIC AMINE:

Reproductive toxicity - Assessment : Clear evidence of adverse effects on development, based on animal experiments.

STOT - single exposure

Not classified based on available information.

Components:

METHYLPENTAMETHYLENEDIAMINE:

Exposure routes: Inhalation
 Target Organs: Respiratory Tract
 Assessment: May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

Components:

CRISTOBALITE:

Exposure routes: inhalation (dust/mist/fume)
 Target Organs: Respiratory system, Kidney
 Assessment: Causes damage to organs through prolonged or repeated exposure.

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks: No data available

Components:

SILICA VITREOUS:

Remarks: Lung

CRISTOBALITE:

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Remarks: Lung

**Carcinogenicity:
IARC**

Group 1: Carcinogenic to humans

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Group 2B: Possibly carcinogenic to humans

CARBON BLACK 1333-86-4

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

Known to be human carcinogen

CRISTOBALITE 14464-46-1

Reasonably anticipated to be a human carcinogen

CRISTOBALITE 14464-46-1

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

POLYMER:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 2.7 mg/l
Exposure time: 96 h
Test Type: semi-static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Water flea (Daphnia magna)): 2.8 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 4.2 mg/l
Exposure time: 72 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Water flea (Daphnia magna)): 0.3 mg/l
Exposure time: 21 d
Test Type: semi-static test
Method: OECD Test Guideline 211

ALIPHATIC AMINE:

Toxicity to fish : LD 50 (Leuciscus idus (Golden orfe)): > 1,000 mg/l
Exposure time: 96 h

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Test Type: static test
 Test substance: Neutralised product
 Method: DIN 38412

Toxicity to daphnia and other aquatic invertebrates : EC 50 (Water flea (Daphnia magna)): 218.16 mg/l
 Exposure time: 48 h
 Test Type: static test
 Method: Directive 67/548/EEC, Annex V, C.2.

EPOXY RESIN MODIFIER:
 Ecotoxicology Assessment
 Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

EPOXY RESIN CURING AGENT:
 Toxicity to fish : LC 50 (Oncorhynchus mykiss (rainbow trout)): > 180 - < 240 mg/l
 Exposure time: 96 h
 Test Type: static test

Toxicity to algae : EC 50 (Desmodesmus subspicatus (green algae)): 84 mg/l
 End point: Growth inhibition
 Exposure time: 72 h

AROMATIC AMINE:
 Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 283.6 mg/l
 Exposure time: 48 h
 Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 341.5 mg/l
 Exposure time: 48 h
 Test Type: static test
 Method: Directive 67/548/EEC, Annex V, C.2.

Toxicity to algae : EC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): 133 mg/l
 End point: Growth inhibition
 Exposure time: 72 h
 Test Type: static test
 Method: DIN 38412
 GLP: no

ORGANOSILOXANE:
 Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 55 mg/l
 Exposure time: 96 h
 Test Type: semi-static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 324 mg/l
 Exposure time: 48 h
 Test Type: static test

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (microalgae)): 350 mg/l
 Exposure time: 96 h

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Test Type: static test

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia (water flea)): 100 mg/l
Exposure time: 21 d

METHYLPENTAMETHYLENEDIAMINE:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 130 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 50 mg/l
Exposure time: 48 h
Test Type: static test
Method: EPA-660/3-75-009
Remarks: Information given is based on data obtained from similar substances.

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
Remarks: Information given is based on data obtained from similar substances.

NOEC (Pseudokirchneriella subcapitata (green algae)): 10 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
Remarks: Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 4.16 mg/l
Exposure time: 21 d
End point: Reproduction Test
Test Type: semi-static test
Method: OECD Test Guideline 211
GLP: yes
Remarks: Information given is based on data obtained from similar substances.

Toxicity to bacteria : EC20 (Pseudomonas putida): 30 mg/l
End point: Growth rate
Exposure time: 18 h
Test Type: Static

Persistence and degradability

Components:

POLYMER:

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Biodegradability : Result: Not readily biodegradable.
Biodegradation: 5 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

Biodegradation: 82 %
Exposure time: 28 d
Method: Abiotic degradation

Physico-chemical removability : Remarks: The product can be degraded by abiotic (e.g. chemical or photolytic) processes.

ALIPHATIC AMINE:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: < 10 %
Exposure time: 60 d
Method: OECD Test Guideline 301B

EPOXY RESIN CURING AGENT:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 4 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

AROMATIC AMINE:

Biodegradability : Inoculum: activated sludge
Result: Readily biodegradable
Exposure time: 18 d
Method: OECD Test Guideline 301A
GLP: yes

ORGANOSILOXANE:

Biodegradability : aerobic
Result: Not readily biodegradable.
Biodegradation: 37 %
Exposure time: 28 d
GLP: yes

METHYLPENTAMETHYLENEDIAMINE:

Biodegradability : Result: Readily biodegradable
Biodegradation: 100 %
Exposure time: 28 d
Method: OECD Test Guideline 301D
GLP: yes

Bioaccumulative potential

Components:

AROMATIC AMINE:

Partition coefficient: n-octanol/water : log Pow: -0.02 (25 °C)
Method: OECD Test Guideline 107

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ORGANOSILOXANE:
 Partition coefficient: n-octanol/water : log Pow: Estimated 0.5 (20 °C)

METHYLPENTAMETHYLENEDIAMINE:
 Partition coefficient: n-octanol/water : log Pow: <= 1 (25 °C)
 pH: 9
 GLP: yes

Mobility in soil

Components:
 No data available

Other adverse effects

No data available

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life with long lasting effects.

Components:

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

General advice : The product should not be allowed to enter drains, water courses or the soil.
 Do not contaminate ponds, waterways or ditches with chemical or used container.
 Send to a licensed waste management company.

Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents.
 Dispose of as unused product.
 Empty containers should be taken to an approved waste handling site for recycling or disposal.
 Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.

U.S. DOT - ROAD

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UN	3267	Corrosive liquid, basic, organic, n.o.s. (2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL, ALIPHATIC AMINE)	8	III	LIMITED QUANTITY
----	------	---	---	-----	------------------

U.S. DOT - RAIL

UN	3267	Corrosive liquid, basic, organic, n.o.s. (2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL, ALIPHATIC AMINE)	8	III	LIMITED QUANTITY
----	------	---	---	-----	------------------

U.S. DOT - INLAND WATERWAYS

UN	3267	Corrosive liquid, basic, organic, n.o.s. (2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL, ALIPHATIC AMINE)	8	III	LIMITED QUANTITY
----	------	---	---	-----	------------------

TRANSPORT CANADA - ROAD

UN	3267	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL, ALIPHATIC AMINE)	8	III	LIMITED QUANTITY
----	------	---	---	-----	------------------

TRANSPORT CANADA - RAIL

UN	3267	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL, ALIPHATIC AMINE)	8	III	LIMITED QUANTITY
----	------	---	---	-----	------------------

TRANSPORT CANADA - INLAND WATERWAYS

UN	3267	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL, ALIPHATIC AMINE)	8	III	LIMITED QUANTITY
----	------	---	---	-----	------------------

INTERNATIONAL MARITIME DANGEROUS GOODS

UN	3267	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL, ALIPHATIC AMINE)	8	III	MARINE POLLUTANT:(EPOXY RESIN)LIMITED QUANTITY
----	------	---	---	-----	--

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INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

UN	3267	Corrosive liquid, basic, organic, n.o.s. (2,4,6- TRIS(DIMETHYLAMINOMETH YL)PHENOL, ALIPHATIC AMINE)	8	III	LIMITED QUANTITY
----	------	---	---	-----	---------------------

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

UN	3267	Corrosive liquid, basic, organic, n.o.s. (2,4,6- TRIS(DIMETHYLAMINOMETH YL)PHENOL, ALIPHATIC AMINE)	8	III	LIMITED QUANTITY
----	------	---	---	-----	---------------------

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

UN	3267	LIQUIDO CORROSIVO, BASICO, ORGANICO, N.E.P. (2,4,6- TRIS(DIMETHYLAMINOMETH YL)PHENOL, ALIPHATIC AMINE)	8	III	
----	------	---	---	-----	--

***ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Marine pollutant	yes
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Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION**PART A**

SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard

SARA 313 Component(s)SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65 WARNING! This product contains a chemical known to the State of California to cause cancer.

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CARBON BLACK 1333-86-4

CRISTOBALITE 14464-46-1

EPICHLOROHYDRIN 106-89-8

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

METHANOL 67-56-1

EPICHLOROHYDRIN 106-89-8

PART B

SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard

SARA 313 Component(s)SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65 WARNING! This product contains a chemical known to the State of California to cause cancer.
CRISTOBALITE 14464-46-1

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

DSL : This product contains the following components listed on the Canadian NDSL. All other components are on the Canadian DSL.

AUSTR : On the inventory, or in compliance with the inventory

ENCS : Exempt

KECL : Not in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECL (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

Registration: Trade Secret

Chemical Name	Identification number
POLYMER	800986-5211P
ALIPHATIC AMINE	254504001-5601
EPOXY RESIN MODIFIER	800986-5520P

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EPOXY RESIN CURING AGENT	800986-5577P
AROMATIC AMINE	800986-5525P
ORGANOSILOXANE	800986-5522P

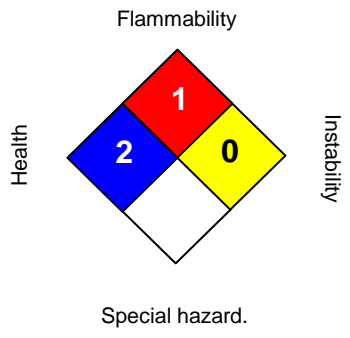
SECTION 16. OTHER INFORMATION

Further information

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PART A

NFPA:



HMIS III:

HEALTH	2*
FLAMMABILITY	1
PHYSICAL HAZARD	0

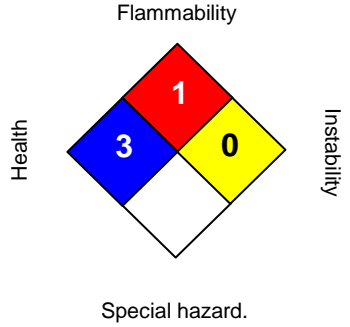
0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

PART B

NFPA:



HMIS III:

HEALTH	3*
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

Full text of H-Statements referred to under sections 2 and 3.

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PART A

H227	Combustible liquid.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.

PART B

H227	Combustible liquid.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H350	May cause cancer.
H360	May damage fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure if inhaled.

Sources of key data used to compile the Safety Data Sheet
Ashland internal data including own and sponsored test reports
The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

- ACGIH : American Conference of Industrial Hygienists
- BEI : Biological Exposure Index
- CAS : Chemical Abstracts Service (Division of the American Chemical Society).
- CMR : Carcinogenic, Mutagenic or Toxic for Reproduction
- FG : Food grade
- GHS : Globally Harmonized System of Classification and Labeling of Chemicals.
- H-statement : Hazard Statement
- IATA : International Air Transport Association.
- IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

- ICAO : International Civil Aviation Organization
- ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"
- IMDG : International Maritime Code for Dangerous Goods

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ISO : International Organization for Standardization
 logPow : octanol-water partition coefficient
 LCxx : Lethal Concentration, for xx percent of test population
 LDxx : Lethal Dose, for xx percent of test population.
 ICxx : Inhibitory Concentration for xx of a substance
 Ecxx : Effective Concentration of xx
 N.O.S.: Not Otherwise Specified
 OECD : Organization for Economic Co-operation and Development
 OEL : Occupational Exposure Limit
 P-Statement : Precautionary Statement
 PBT : Persistent , Bioaccumulative and Toxic
 PPE : Personal Protective Equipment
 STEL : Short-term exposure limit
 STOT : Specific Target Organ Toxicity
 TLV : Threshold Limit Value
 TWA : Time-weighted average
 vPvB : Very Persistent and Very Bioaccumulative
 WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act
 DOT : Department of Transportation
 FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act
 HMIRC : Hazardous Materials Information Review Commission
 HMIS : Hazardous Materials Identification System
 NFPA : National Fire Protection Association
 NIOSH : National Institute for Occupational Safety and Health
 OSHA : Occupational Safety and Health Administration
 PMRA : Health Canada Pest Management Regulatory Agency
 RTK : Right to Know
WHMIS : Workplace Hazardous Materials Information System