SAFETY DATA SHEET

Revision Date: 09/09/2011
Print Date: 10/3/2011
MSDS Number: 000000039681
Version: 2.0

Maxguard™ XG-LEI-0000 GELCOAT
™ Trademark, Ashland or its subsidiaries, registered in various countries
591155

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Ashland P.O. Box 2219 Columbus, OH 43216	Regulatory Information Number Telephone Emergency telephone number	1-800-325-3751 614-790-3333 1-800-ASHLAND (1-800-274-5263)
Product name	Maxguard™ XG-LEI-0000 GELCOAT ™ Trademark, Ashland or its subsidiaries, registered in various countries	
Product code	591155	

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid

WARNING! FLAMMABLE LIQUID AND VAPOR. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY BE HARMFUL IF INHALED. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. MAY CAUSE ALLERGIC SKIN OR RESPIRATORY REACTION. MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN, CAUSE IRRITATION AND BURNS.

Potential Health Effects

Exposure routes

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

Eye contact

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin contact

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Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Additional symptoms of skin contact may include: allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects) peeling of the skin Individuals with direct skin contact with methyl methacrylate have experienced temporary loss of feeling and mild nerve damage in the fingers.

Ingestion

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.). May cause allergic respiratory reaction.

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material:, Upper respiratory tract, Skin, lung (for example, asthma-like conditions), Liver, Central nervous system, male reproductive system, auditory system, kidney

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:, metallic taste, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), pain in the hands and feet, confusion, runny nose, Cough, sneezing, bronchitis, irritability, effects on memory, central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, Lack of coordination, loss of appetite, sleep disturbances, liver damage, kidney damage, Lowered blood pressure, respiratory depression (slowing of the breathing rate), Shortness of breath, chest pain, Difficulty in breathing, Exposure to this product (or a component) may cause an allergic reaction (narrowing of the air passages of the lungs resulting in difficult breathing, tightness in the chest, coughing and wheezing) in some sensitive individuals. Other symptoms of an allergic reaction may include itchy and watery eyes, runny and stuffy nose, sweating, flushing, hives, rapid heart rate, and lowered blood pressure.

Target Organs

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Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals:, mild, reversible kidney effects, effects on hearing, respiratory tract damage (nose, throat, and airways), testis damage, liver damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans:, mild effects on color vision, effects on hearing, respiratory tract damage (nose, throat, and airways), central nervous system effects, effects on lung function, nasal damage, kidney damage

Carcinogenicity

Styrene is listed as a possible human carcinogen by the International Agency for Research on Cancer (IARC) and as reasonably anticipated to be a human carcinogen by the National Toxicology Program (NTP). Cobalt and certain cobalt compounds have been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain. Cobalt and certain cobalt compounds are listed as carcinogenic by the International Agency for Research on Cancer (IARC).This product may contain non-asbestiform talc. Inhalation of non-asbestiform talc has been shown to cause lung and adrenal cancer in female rats and adrenal gland cancer in male rats. It did not cause cancer in male or female mice similarly exposed. Talc is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive hazard

This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

Other information

Styrene readily reacts with low concentrations of halogens (for example, fluorine, chlorine, bromine, or iodine) to form a tear-producing substance.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components	CAS-No. / Trade Secret No.	Concentration
STYRENE	100-42-5	>=30-<40%
TALC	14807-96-6	>=15-<20%
METHYLMETHACRYLATE	80-62-6	>=1.5-<5%

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SILICA COLLOIDAL AMORPHOUS	112945-52-5	>=1-<1.5%
COBALT COMPOUNDS		>=0.1-<0.5%

4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Notes to physician

Hazards: This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 2 - Swallowing) when deciding whether to induce vomiting.

Treatment: No information available.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water spray, Dry chemical, Carbon dioxide (CO2), Foam

Hazardous combustion products

carbon dioxide and carbon monoxide, Hydrocarbons, toxic fumes

Precautions for fire-fighting

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Water may be ineffective for extinguishment unless used under favorable conditions by experienced fire fighters. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes. Polymerization will take place under fire conditions. If polymerization occurs in a closed container, there is a possibility it will rupture violently. Cool storage container with water, if exposed to fire.

NFPA Flammable and Combustible Liquids Classification

Flammable Liquid Class IC

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Ensure adequate ventilation. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind.

Environmental precautions

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

Methods for cleaning up

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Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Other information

Comply with all applicable federal, state, and local regulations. Suppress (knock down) gases/vapours/mists with a water spray jet.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77.

Storage

Store in a cool, dry, ventilated area, away from incompatible substances. Keep containers closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

STYRENE		**100-42-5**
ACGIH	time weighted average	20 ppm
ACGIH	Short term exposure limit	40 ppm
NIOSH	Recommended exposure limit (REL):	50 ppm
NIOSH	Recommended exposure limit (REL):	215 mg/m3
NIOSH	Short term exposure limit	100 ppm
NIOSH	Short term exposure limit	425 mg/m3

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OSHA Z2	time weighted average	100 ppm	
OSHA Z2	Ceiling Limit Value:	200 ppm	
OSHA Z2	Maximum concentration:	600 ppm	
TALC		**14807-96-6**	
ACGIH	time weighted average	2 mg/m3	Respirable fraction.
NIOSH	Recommended exposure limit (REL):	2 mg/m3	Respirable.
Z3	time weighted average	0.1 mg/m3	Respirable.
Z3	time weighted average	0.3 mg/m3	Total dust.
METHYLMETHACRYLATE		**80-62-6**	
ACGIH	time weighted average	50 ppm	
ACGIH	Short term exposure limit	100 ppm	
NIOSH	Recommended exposure limit (REL):	100 ppm	
NIOSH	Recommended exposure limit (REL):	410 mg/m3	
OSHA Z1	Permissible exposure limit	100 ppm	
OSHA Z1	Permissible exposure limit	410 mg/m3	
SILICA COLLOIDAL AMORPHOUS		**112945-52-5**	
NIOSH	Recommended exposure limit (REL):	6 mg/m3	
Z3	time weighted average	0.8 mg/m3	

General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls

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. OSHA has formally endorsed a styrene industry proposal for a voluntary 50 ppm workplace limit on styrene. Members of the Styrene Information and Research Council (SIRC), Composites Institute (CI), Composite Fabricators Association (CFA), International Cast Polymers Association (ICPA) and National Marine Manufacturers Association (NMMA) have agreed to use either engineering controls, work practices or respiratory protection to achieve this voluntary limit for styrene.

Eye protection

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Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.
Wear resistant gloves (consult your safety equipment supplier).
Discard gloves that show tears, pinholes, or signs of wear.

Respiratory protection

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Boiling point/boiling range	212.9 °F / 100.5 °C @ 101.32 kPa

Flash point	79.0 °F / 26.1 °C Seta closed cup
Lower explosion limit/Upper explosion limit	1.1 %(V) / 12.5 %(V)

Vapour pressure	5.132 kPa @ 77 °F / 25 °C
Density	1.078 g/cm3 @ 77 °F / 25 °C
Water solubility	insoluble

10. STABILITY AND REACTIVITY

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Stability

Stable under recommended storage conditions.

Conditions to avoid

Avoid heat, open flame, and prolonged storage at elevated temperatures.

Incompatible products

Acids, aluminum chloride, halogens, iron chloride, metal salts, Peroxides, strong alkalis, Strong oxidizing agents, alkalis, Strong acids, Amines, nitrates, UV light.

Hazardous decomposition products

Hydrocarbons, toxic fumes, carbon dioxide and carbon monoxide

Hazardous reactions

Product can undergo hazardous polymerization., Avoid exposure to excessive heat, peroxides and polymerization catalysts.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

Acute oral toxicity - Product	:	no data available

Acute oral toxicity - Components

STYRENE	:	LD 50: 2,650 mg/kg Species: Rat
METHYLMETHACRYLATE	:	LD 50: 7,800 mg/kg Species: Rat
SILICA COLLOIDAL AMORPHOUS	:	LD 50: > 5,000 mg/kg Species: Rat

Acute inhalation toxicity

Acute inhalation toxicity -	:	no data available

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Product

Acute inhalation toxicity - Components

STYRENE	:	LC 50: 2800 ppm Exposure time: 4 h Species: Rat
METHYLMETHACRYLATE	:	LC 50: 3,750 mg/l Exposure time: 8 h Species: Rat

Acute dermal toxicity

Acute dermal toxicity - Product	:	no data available

Acute dermal toxicity - Components

SILICA COLLOIDAL AMORPHOUS	:	LD 50: > 2,000 mg/kg Species: Rabbit

Acute toxicity (other routes of administration)

Acute toxicity (other routes of administration)	:	no data available

12. ECOLOGICAL INFORMATION

Biodegradability

Biodegradability - Product	:	no data available

Bioaccumulation

Bioaccumulation - Product	:	no data available

Ecotoxicity effects

Toxicity to fish

Toxicity to fish - Product	:	no data available

Toxicity to fish - Components

METHYLMETHACRYL	:	LC 50: 130 mg/l

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ATE	Exposure time: 96 h Species: Fathead minnow (Pimephales promelas) Method: Static Remarks: Mortality

Toxicity to daphnia and other aquatic invertebrates.

Toxicity to daphnia and other aquatic invertebrates. - Product	:	no data available

Toxicity to daphnia and other aquatic invertebrates. - Components

METHYLMETHACRYLATE	:	LC 50: 1,760 mg/l Exposure time: 24 h Species: Water flea (Daphnia magna) Method: Static Remarks: Mortality

Toxicity to algae

Toxicity to algae - Product	:	no data available

Toxicity to bacteria

Toxicity to bacteria - Product	:	no data available

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

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

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14. TRANSPORT INFORMATION

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
U.S. DOT - ROAD					
UN 1866	Resin solution	3		III	
U.S. DOT - RAIL					
UN 1866	Resin solution	3		III	
U.S. DOT - INLAND WATERWAYS					
UN 1866	Resin solution	3		III	
TRANSPORT CANADA - ROAD					
UN 1866	RESIN SOLUTION	3		III	
TRANSPORT CANADA - RAIL					
UN 1866	RESIN SOLUTION	3		III	
TRANSPORT CANADA - INLAND WATERWAYS					
UN 1866	RESIN SOLUTION	3		III	
INTERNATIONAL MARITIME DANGEROUS GOODS					
UN 1866	RESIN SOLUTION	3		III	
INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO					
UN 1866	Resin solution	3		III	
INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER					
UN 1866	Resin solution	3		III	

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

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UN	1866	RESINA, SOLUCIONES DE	3	III

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

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.

15. REGULATORY INFORMATION

California Prop. 65

WARNING! This product contains a chemical known to the State of California to cause cancer.	1,3, BUTADIENE ETHYLENE OXIDE ACETALDEHYDE 1,4-DIOXANE FORMALDEHYDE BENZENE ETHYL BENZENE
WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.	BENZENE METHYL CHLORIDE ETHYLENE OXIDE ETHYLENE GLYCOL MONOMETHYL ETHER TOLUENE 1,3, BUTADIENE

SARA Hazard Classification
SARA 311/312 Classification

Reactivity Hazard
Fire Hazard Acute Health Hazard Chronic Health Hazard

SARA 313 Component(s)

STYRENE	31.16 %

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METHYLMETHACRYLATE	3.00 %
COBALT 2-ETHYLHEXANOATE	0.09 %
COBALT NEODECANOATE	0.03 %
COBALT HYDROXIDE	0.01 %

Notification status

US. Toxic Substances Control Act	y (positive listing)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)	y (positive listing)
Australia. Industrial Chemical (Notification and Assessment) Act	n (Negative listing)
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	n (Negative listing)
Japan. Kashin-Hou Law List	n (Negative listing)
Korea. Toxic Chemical Control Law (TCCL) List	n (Negative listing)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	n (Negative listing)
China. Inventory of Existing Chemical Substances	n (Negative listing)

Reportable quantity - Product

US. EPA CERCLA Hazardous Substances (40 CFR 302)	3208 lbs

Reportable quantity-Components

STYRENE	100-42-5	1000 lbs

	HMIS	NFPA
Health	2*	2
Flammability	3	3
Physical hazards	2	
Instability		2

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	HMIS	NFPA
Specific Hazard	--	--

16. OTHER INFORMATION

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 MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).