AROPOL 7241 T 25

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity
Product Name: AROPOL 7241 T 25
Product Code: 569367
General or Generic ID: UNSATURATED POLYESTER RESIN

Company
Ashland
Ashland Distribution Co. &
Ashland Specialty Chemical Co.
P. O. Box 2219
Columbus, OH 43216
614-790-3333

Emergency Telephone Number:
1-800-ASHLAND (1-800-274-5263)
24 hours everyday

Regulatory Information Number:
1-800-325-3751

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
POLYMER (S)	Trade Secret	50.0- 54.0
STYRENE	100-42-5	46.8
COBALT COMPOUNDS		0.1- 0.1

3. HAZARDS IDENTIFICATION

Potential Health Effects

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

Skin
Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Swallowing
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 aerosol and/or mist is possible when material is sprayed. Aerosol and mist may present a greater risk of injury because more material may be present in the air than from vapor alone. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).

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Symptoms of Exposure

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), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, loss of coordination, confusion, liver damage.

Target Organ Effects

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.

Developmental Information

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.

Cancer Information

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). There was no increase in cancer in rats exposed to styrene by inhalation. However, there was an increase in lung cancer in styrene-exposed mice. The relevance of the mouse lung cancer to humans is uncertain. Styrene did not cause cancer in mice in studies in which the chemical was placed in the stomachs through a feeding tube, or in a study in which styrene was given by injection. Epidemiological studies do not provide a basis for concluding that styrene causes cancer. Styrene is listed as a carcinogen by the International Agency for Research on Cancer (IARC).

Other Health Effects

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

Primary Route(s) of Entry

Inhalation, Skin absorption, Skin contact, Eye contact, Ingestion.

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.

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Swallowing
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, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Note to Physicians
This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 3 - Swallowing) when deciding whether to induce vomiting. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: respiratory tract, skin, lung (for example, asthma-like conditions), liver, male reproductive system, auditory system.

5. FIRE FIGHTING MEASURES

Flash Point
80.0 - 90.0 F (26.6 - 32.2 C) ESTIMATED

Explosive Limit
(for component) Lower 1.1 Upper 6.1 %

Autoignition Temperature
No data

Hazardous Products of Combustion
May form: carbon dioxide and carbon monoxide, toxic fumes, various hydrocarbons.

Fire and Explosion Hazards
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. During a fire, irritating or toxic decomposition products may be generated.

Extinguishing Media
regular foam (such as AFFF), water fog, carbon dioxide, dry chemical.

Fire Fighting Instructions
Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). 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.

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NFPA Rating
Health - 2, Flammability - 3, Reactivity - 2

6. ACCIDENTAL RELEASE MEASURES

Small Spill
Eliminate all sources of ignition such as flares, flames (including pilot lights), and electrical sparks. Absorb liquid on vermiculite, floor absorbent or other absorbent material. Persons not wearing proper personal protective equipment should be excluded from area of spill.

Large Spill
Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks).

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. Precautions during use: avoid prolonged or frequently repeated skin contact with this material. Skin contact can be mininized by wearing impervious protective gloves. As with all products of this nature, good personal hygiene is essential. Hands and other exposed areas should be washed thoroughly with soap and water after contact, especially before eating and/or smoking. Regular laundering of contaminated clothing is essential to reduce indirect skin contact with this material. Warning. Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

Storage
Store in closed containers in a dry, well-ventilated area. Do not store near extreme heat, open flame, or sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection
Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

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Skin Protection
Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Respiratory Protections
If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls
Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Exposure Guidelines
Component

POLYMER (S)
No exposure limits established

STYRENE (100-42-5)
OSHA PEL 100.000 ppm - TWA
OSHA PEL 200.000 ppm - Ceiling
OSHA VPEL 50.000 ppm - TWA
OSHA VPEL 100.000 ppm - STEL
ACGIH TLV 20.000 ppm - TWA (Skin)
ACGIH TLV 40.000 ppm - STEL (Skin)

COBALT COMPOUNDS
No exposure limits established

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point
(for component) 293.4 F (145.2 C) @ 760 mmHg

Vapor Pressure
(for component) 4.500 mmHg

Specific Vapor Density
3.600 @ AIR=1

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Specific Gravity
1.058 - 1.106 @ 77.00 F

Liquid Density
8.800 - 9.200 lbs/gal @ 77.00 F
1.058 - 1.106 kg/l @ 25.00 C

Percent Volatiles
No data

Evaporation Rate
SLOWER THAN ETHYL ETHER

Appearance
CLEAR & CLEAN

State
LIQUID

Physical Form
HOMOGENEOUS SOLUTION

Color
COBALT

Odor
PUNGENT

pH
Not applicable

Solubility in Water
NEGLIGIBLE

10. STABILITY AND REACTIVITY

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

Hazardous Decomposition
May form: carbon dioxide and carbon monoxide, toxic fumes, various hydrocarbons.

Chemical Stability
Stable. Avoid heat, open flame, and prolonged storage at elevated temperatures. This material is unstable at elevated temperatures and pressures.

Incompatibility
Avoid contact with: acids, aluminum chloride, excessive heat, halogens, iron chloride, metal salts, peroxides, strong alkalis, strong oxidizing agents.

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11. TOXICOLOGICAL INFORMATION

No data

12. ECOLOGICAL INFORMATION

No data

13. DISPOSAL CONSIDERATION

Waste Management Information

Dispose of in accordance with all applicable local, state and federal regulations. Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution Company, IC&S Environmental Services Group at 800-531-7106.

14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101

DOT Description:
RESIN SOLUTION,3,UN1866,III

Container/Mode:
55 GAL DRUM/TRUCK PACKAGE

NOS Component:
None

RQ (Reportable Quantity) - 49 CFR 172.101

Product Quantity (lbs)	Component
2135	STYRENE

Other Transportation Information

The Transport Information may vary with the container and mode of shipment.

15. REGULATORY INFORMATION

US Federal Regulations

TSCA (Toxic Substances Control Act) Status

TSCA (UNITED STATES) The intentional ingredients of this product are listed.

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CERCLA RQ - 40 CFR 302.4(a)

Component	RQ (lbs)
STYRENE	1000

SARA 302 Components - 40 CFR 355 Appendix A

None

Section 311/312 Hazard Class - 40 CFR 370.2

Immediate(X) Delayed(X) Fire(X) Reactive(X) Sudden Release of Pressure( )

SARA 313 Components - 40 CFR 372.65

Section 313 Component(s)	CAS Number	%
STYRENE	100-42-5	46.84
COBALT COMPOUNDS	61789-51-3	.04

OSHA Process Safety Management 29 CFR 1910

None listed

EPA Accidental Release Prevention 40 CFR 68

None listed

Organic Hazardous Air Pollutants (HAPs) 40 CFR Part 63 Subpart WWWW and VVVV

HAP Component(s)	CAS Number	% (by weight)
STYRENE, MONOMER	100-42-5	46.84
Total		46.84

Volatile Organic Compound (VOC) Content

48.0 %

International Regulations

Inventory Status

DSL (CANADA) The intentional ingredients of this product are listed.

State and Local Regulations

California Proposition 65

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause cancer.
COBALT METAL POWDER
BENZENE

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause reproductive harm.
BENZENE
TOLUENE

Styrene, in the presence of air and high temperature or prolonged exposure to styrene/air mixture to sunlight, can react to form styrene oxide. Styrene oxide is a chemical known to the state of California to cause cancer.

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New Jersey RTK Label Information
STYRENE MONOMER 100-42-5

Pennsylvania RTK Label Information
BENZENE, ETHENYL- 100-42-5

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.