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<b>SAFETY DATA SHEET</b>		Revision Date: 08/21/2015
		Print Date: 10/14/2015
		SDS Number: R0028346
Hetron™ 92 FR RESIN ™ Trademark, Ashland or its subsidiaries, registered in various countries 121644		Version: 1.1

29 CFR 1910.1200 (OSHA HazCom 2012)

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

### Product identifier

Trade name : Hetron™ 92 FR  
RESIN  
™ Trademark, Ashland or its subsidiaries, registered in various countries

### Recommended use of the chemical and restrictions on use

Use of the : Industrial chemical  
Substance/Mixture

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

### GHS Classification

Flammable liquids : Category 3

Combustible Dust :

Skin irritation : Category 2

Eye irritation : Category 2A

Germ cell mutagenicity : Category 1B

Reproductive toxicity : Category 2

Specific target organ systemic toxicity - single exposure : Category 3 (Respiratory system)

Specific target organ systemic toxicity - repeated exposure (Inhalation) : Category 1 (Auditory system)

### GHS Label element

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Hazard pictograms : 

Signal Word : Danger

Hazard Statements : Flammable liquid and vapor.  
May form combustible dust concentrations in air.  
Causes skin irritation.  
Causes serious eye irritation.  
May cause respiratory irritation.  
May cause genetic defects.  
Suspected of damaging fertility or the unborn child.  
Causes damage to organs (Auditory system) through prolonged or repeated exposure if inhaled.

Precautionary Statements : **Prevention:**  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.  
Wash skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
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. Call a POISON CENTER or doctor/ physician if you feel unwell.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
IF exposed or concerned: Get medical advice/ attention.  
If skin irritation occurs: Get medical advice/ attention.  
If eye irritation persists: Get medical advice/ attention.  
Take off contaminated clothing and wash before reuse.  
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
**Storage:**  
Store in a well-ventilated place. Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store locked up.

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**Disposal:**

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

**Other hazards**

Static Accumulating liquid

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture  
 Chemical nature : Static Accumulator  
 Chemical nature : Defatter

**Hazardous components**

Chemical Name	CAS-No.	Classification	Concentration (%)
STYRENE	100-42-5	Flam. Liq. 3; H226 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2A; H319 STOT SE 3; H335 STOT RE 1; H372 Asp. Tox. 1; H304	32.26
TRIETHYL PHOSPHATE	78-40-0	Acute Tox. 4; H302 Eye Irrit. 2A; H319	2.10
DIMETHYL METHANEPHOSPHONATE	756-79-6	Acute Tox. 4; H332 Eye Irrit. 2A; H319 Muta. 1B; H340 Repr. 2; H361	0.90

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#### SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.  
Call a POISON CENTRE or doctor/physician if exposed or you feel unwell.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : Move to fresh air.  
IF INHALED: Call a POISON CENTER or doctor/ physician if you feel unwell.  
Keep patient warm and at rest.  
If unconscious place in recovery position and seek medical advice.
- 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.  
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Protect unharmed eye.
- If swallowed : Obtain medical attention.  
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 : 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)  
confusion  
Causes skin irritation.  
Causes serious eye irritation.  
May cause respiratory irritation.  
May cause genetic defects.  
Suspected of damaging fertility or the unborn child.  
Causes damage to organs through prolonged or repeated exposure if inhaled.
- Notes to physician : No hazards which require special first aid measures.

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#### SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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- Water spray
  - Foam
  - Alcohol-resistant foam
  - Carbon dioxide (CO<sub>2</sub>)
  - Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Organic dusts at sufficient concentration can form explosive mixtures in air.  
Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.  
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.  
Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Hydrocarbons  
carbon dioxide and carbon monoxide  
Oxides of phosphorus
- Specific extinguishing methods :
- Product is compatible with standard fire-fighting agents.
- Further information : Do not use a solid water stream as it may scatter and spread fire.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.  
Use a water spray to cool fully closed containers.
- 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.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.  
Remove all sources of ignition.  
Use personal protective equipment.  
Ensure adequate ventilation.  
Beware of vapours accumulating to form explosive

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concentrations. Vapours can accumulate in low areas. 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 : 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.

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## SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Open drum carefully as content may be under pressure. Avoid formation of aerosol. Provide sufficient air exchange and/or exhaust in work rooms. Do not breathe vapours/dust. Do not smoke. Container hazardous when empty. Take precautionary measures against static discharges. 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. Secondary operations, such as grinding and sanding, may produce dust. Maintain good housekeeping. Do not permit dust layers to accumulate, for example, on floors, ledges, and equipment, in order to avoid any potential for dust explosion hazards.
- For further guidance on prevention of dust explosions, refer to National Fire Protection Association (NFPA) 654: "Standard for the Prevention of Fire and Dust Explosions, from the Manufacturing, Processing and Handling of Combustible Particulate Solids".
- 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.

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No smoking.  
Electrical installations / working materials must comply with the technological safety standards.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
STYRENE	100-42-5	TWA	20 ppm	ACGIH
		STEL	40 ppm	ACGIH
		REL	50 ppm 215 mg/m3	NIOSH/GUID E
		STEL	100 ppm 425 mg/m3	NIOSH/GUID E
		TWA	100 ppm	OSHA/Z2
		Ceiling	200 ppm	OSHA/Z2
		MAX. CONC	600 ppm	OSHA/Z2
TRIETHYL PHOSPHATE	78-40-0	TWA	1 ppm 7.45 mg/m3	WEEL

### Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
STYRENE	100-42-5	styrene	Venous blood	Sampling time: End of shift.	0.2 mg/l	
Remarks:	Semi-quantitative					
		Mandelic acid plus phenylglyoxylic acid	Creatinine in urine	Sampling time: End of shift.	400 mg/g	
Remarks:	Nonspecific					

**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.  
Provide appropriate exhaust ventilation at places where dust is formed.

### 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

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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 when there is the potential for exposure of the eyes to liquid, vapor or mist.
- Skin and body protection : Wear as appropriate:  
impervious clothing  
Safety shoes  
Flame-resistant clothing  
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.  
When using do not smoke.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state : liquid
- Odour : pungent
- Odour Threshold : No data available
- pH : No data available
- Melting point/freezing point : No data available
- Boiling point/boiling range : 293 °F / 145 °C
- Flash point : 84 °F / 29 °C  
Method: Seta closed cup
- Evaporation rate : No data available
- Flammability (solid, gas) :



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May form combustible dust concentrations in air (during processing).

Flammability (liquids)	: Static Accumulating liquid
Flammability (liquids)	:
Upper explosion limit	: 6.1 %(V)
Lower explosion limit	: 1.1 %(V)
Vapour pressure	: 8.53248 hPa (25 °C) Calculated Vapor Pressure
Relative vapour density	: > 1AIR=1
Relative density	: 1.28 (77.00 °F)
Density	: 1.28 g/cm3 (77.0 °F)
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
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: > 20.5 mm2/s (40 °C)
Oxidizing properties	: No data available

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## 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	: Hazardous polymerisation may occur. Vapours may form explosive mixture with air. This product does not present a dust explosion hazard as delivered. However, fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source, is a potential dust explosion hazard.

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Conditions to avoid : Heat, flames and sparks.  
excessive heat  
Exposure to air.  
Exposure to sunlight.

Incompatible materials : Acids  
aluminum  
aluminum chloride  
Bases  
Copper  
Copper alloys  
halogens  
iron chloride  
metal salts  
Strong oxidizing agents  
Peroxides

Hazardous decomposition products : carbon dioxide and carbon monoxide  
Hydrocarbons  
Oxides of phosphorus

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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:

#### STYRENE:

Acute oral toxicity : LD50 Oral (Rat): > 2,000 mg/kg

Acute inhalation toxicity : LC 50 (Rat): 11.8 mg/l, 2770 ppm  
Exposure time: 4 h  
Test atmosphere: vapour

No observed adverse effect level (Humans): 100 ppm  
Exposure time: 7 h  
Test atmosphere: vapour

Acute dermal toxicity : LD 50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: No adverse effect has been observed in acute dermal toxicity tests.

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**TRIETHYL PHOSPHATE:**

Acute oral toxicity : LD 50 (Rat): 1,311 mg/kg

Acute inhalation toxicity : LC 50 (Rat): > 8.817 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403

Acute dermal toxicity : LD 50 (Rabbit): > 20 g/kg

**DIMETHYL METHANEPHOSPHONATE:**

Acute oral toxicity : LD 50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 2.589 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403

Acute dermal toxicity : LD 50 (Rabbit): > 4,640 mg/kg  
Method: OECD Test Guideline 402  
Assessment: No adverse effect has been observed in acute dermal toxicity tests.

**Skin corrosion/irritation**

Causes skin irritation.

**Product:**

Result: Repeated exposure may cause skin dryness or cracking.

Remarks: May cause skin irritation and/or dermatitis.

**Components:**

**STYRENE:**

Species: Rabbit

Result: Irritating to skin

**TRIETHYL PHOSPHATE:**

Species: Rabbit

Method: OECD Test Guideline 404

Result: Not irritating to skin

**DIMETHYL METHANEPHOSPHONATE:**

Result: Mildly irritating to skin

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Product:**

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin., Causes serious eye irritation.

**Components:**

**STYRENE:**

Result: Irritating to eyes

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Remarks: Vapour during processing may be irritating to the respiratory tract and to the eyes.

**TRIETHYL PHOSPHATE:**

Species: Rabbit  
Result: Irritating to eyes  
Method: OECD Test Guideline 405

**DIMETHYL METHANEPHOSPHONATE:**

Result: Irritating to eyes

**Respiratory or skin sensitisation**

Skin sensitisation: Not classified based on available information.  
Respiratory sensitisation: Not classified based on available information.

**Components:**

**STYRENE:**

Exposure routes: Skin contact  
Species: Guinea pig  
Assessment: Does not cause skin sensitisation.  
Result: negative

Exposure routes: inhalation (vapour)  
Species: Humans  
Assessment: Does not cause respiratory sensitisation.  
Result: negative

**DIMETHYL METHANEPHOSPHONATE:**

Test Type: Maximisation Test (GPMT)  
Species: Guinea pig  
Assessment: Did not cause sensitisation on laboratory animals.

**Germ cell mutagenicity**

May cause genetic defects.

**Components:**

**DIMETHYL METHANEPHOSPHONATE:**

Genotoxicity in vitro : Test Type: in vitro assay  
Result: Positive results were obtained in some in vitro tests.

Genotoxicity in vivo : Test Type: dominant lethal test  
Test species: Mouse  
Result: positive

Germ cell mutagenicity-  
Assessment : In vivo tests showed mutagenic effects

**Carcinogenicity**

Not classified based on available information.

**Product:**

Carcinogenicity -  
Assessment : Styrene has been tested for carcinogenicity in rats and mice.  
Styrene caused lung tumors in mice only. These tumors are not considered to be relevant to humans.

**Reproductive toxicity**

Suspected of damaging fertility or the unborn child.

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**Components:**

**DIMETHYL METHANEPHOSPHONATE:**

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

**STOT - single exposure**

May cause respiratory irritation.

**Components:**

**STYRENE:**

Assessment: May cause respiratory irritation.

**STOT - repeated exposure**

Causes damage to organs (Auditory system) through prolonged or repeated exposure if inhaled.

**Components:**

**STYRENE:**

Exposure routes: inhalation (vapour)

Target Organs: Auditory system

Assessment: Causes damage to organs through prolonged or repeated exposure.

**Repeated dose toxicity**

**Components:**

**STYRENE:**

Species: Human

85 mg/m<sup>3</sup>

Application Route: inhalation (vapour)

Species: Human

615 mg/kg

Application Route: Skin contact

**Aspiration toxicity**

Not classified based on available information.

**Components:**

**STYRENE:**

May be fatal if swallowed and enters airways.

**Further information**

**Product:**

Remarks: Solvents may degrease the skin.

**Carcinogenicity:**

**IARC**

Group 2B: Possibly carcinogenic to humans

STYRENE

100-42-5

**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**

Reasonably anticipated to be a human carcinogen

STYRENE

100-42-5

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## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Components:

##### STYRENE:

Toxicity to fish : LC 50 (Pimephales promelas (fathead minnow)): 4.02 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC 50 (Water flea (Daphnia magna)): 4.7 mg/l  
aquatic invertebrates Exposure time: 48 h

Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): 4.9  
mg/l  
Exposure time: 72 h

Toxicity to daphnia and other : NOEC (Water flea (Daphnia magna)): 1.01 mg/l  
aquatic invertebrates Exposure time: 21 d  
(Chronic toxicity)

Toxicity to bacteria : EC 50 (activated sludge): ca. 500 mg/l  
Exposure time: 0.5 h

Toxicity to soil dwelling : NOEC (Eisenia fetida (earthworms)): 34 mg/kg  
organisms Exposure time: 14 d  
Method: OECD Test Guideline 207

##### TRIETHYL PHOSPHATE:

Toxicity to fish : LC 50 (Fathead minnow (Pimephales promelas)): > 100 mg/l  
Exposure time: 96 h  
Method: Static  
Remarks: Mortality

Toxicity to daphnia and other : LC 50 (Water flea (Daphnia magna)): > 100 mg/l  
aquatic invertebrates Exposure time: 96 h  
Method: Static  
Remarks: Mortality

### Persistence and degradability

#### Components:

##### STYRENE:

Biodegradability : Result: Readily biodegradable  
Biodegradation: > 60 %  
Exposure time: 10 d

### Bioaccumulative potential

#### Components:

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**STYRENE:**  
Bioaccumulation : Bioconcentration factor (BCF): < 100

Partition coefficient: n-octanol/water : log Pow: 2.96 (25 °C)

**TRIETHYL PHOSPHATE:**  
Partition coefficient: n-octanol/water : log Pow: 0.80

**Mobility in soil**

**Components:**

**STYRENE:**  
Distribution among environmental compartments : Koc: 352

**Other adverse effects**

**Product:**

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

**Components:**

**STYRENE:**  
Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

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**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.  
Do not burn, or use a cutting torch on, the empty drum.

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**SECTION 14. TRANSPORT INFORMATION****International transport regulations****REGULATION**

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
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**U.S. DOT - ROAD**

UN 1866	Resin solution	3		III	
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**U.S. DOT - RAIL**

UN 1866	Resin solution	3		III	
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**U.S. DOT - INLAND WATERWAYS**

UN 1866	Resin solution	3		III	
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**TRANSPORT CANADA - ROAD**

UN 1866	RESIN SOLUTION	3		III	
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**TRANSPORT CANADA - RAIL**

UN 1866	RESIN SOLUTION	3		III	
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**TRANSPORT CANADA - INLAND WATERWAYS**

UN 1866	RESIN SOLUTION	3		III	
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**INTERNATIONAL MARITIME DANGEROUS GOODS**

UN 1866	RESIN SOLUTION	3		III	
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**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO**

UN 1866	Resin solution	3		III	
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**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER**

UN 1866	Resin solution	3		III	
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**MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES**

UN 1866	RESINA, SOLUCIONES DE	3		III	
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\*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID



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Marine pollutant	no
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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**

**EPCRA - Emergency Planning and Community Right-to-Know Act**

**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
STYRENE	100-42-5	1000	3099.247193

**SARA 311/312 Hazards** : Reactivity Hazard  
Chronic Health Hazard  
Acute Health Hazard  
Fire Hazard

**SARA 313 Component(s)**

STYRENE	100-42-5	32.26 %
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**California Prop 65**

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

BENZENE	71-43-2
FORMALDEHYDE	50-00-0
1,4-DIOXANE	123-91-1
ACETALDEHYDE	75-07-0
ETHYLENE OXIDE	75-21-8

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

BENZENE	71-43-2
TOLUENE	108-88-3
ETHYLENE OXIDE	75-21-8

**The components of this product are reported in the following inventories:**  
TSCA : On TSCA Inventory

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- DSL : This product contains the following components listed on the Canadian NDSL. All other components are on the Canadian DSL.
- AICS : Not in compliance with the inventory
- ENCS : Not in compliance with the inventory
- KECI : On the inventory, or in compliance with the inventory
- PICCS : Not 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), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

**SECTION 16. OTHER INFORMATION**

**Further information**

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<p><b>NFPA:</b></p> <div style="text-align: center;"> <p>Flammability</p> <p>Health      Instability</p> <p>Special hazard.</p> </div>	<p><b>HMIS III:</b></p> <table border="1" style="width: 100%;"> <tr> <td style="background-color: blue; color: white;"><b>HEALTH</b></td> <td style="text-align: center;"><b>2*</b></td> </tr> <tr> <td style="background-color: red; color: white;"><b>FLAMMABILITY</b></td> <td style="text-align: center;"><b>3</b></td> </tr> <tr> <td style="background-color: yellow;"><b>PHYSICAL HAZARD</b></td> <td style="text-align: center;"><b>2</b></td> </tr> </table> <p>0 = not significant, 1 =Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic</p>	<b>HEALTH</b>	<b>2*</b>	<b>FLAMMABILITY</b>	<b>3</b>	<b>PHYSICAL HAZARD</b>	<b>2</b>
<b>HEALTH</b>	<b>2*</b>						
<b>FLAMMABILITY</b>	<b>3</b>						
<b>PHYSICAL HAZARD</b>	<b>2</b>						

**NFPA Flammable and Combustible Liquids Classification**  
Flammable Liquid Class IC

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

- H226 Flammable liquid and vapor.
- H302 Harmful if swallowed.
- H303 May be harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.

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H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H333	May be harmful if inhaled.
H335	May cause respiratory irritation.
H340	May cause genetic defects.
H361	Suspected of damaging fertility or the unborn child.
H361f	Suspected of damaging fertility.
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  
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

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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**