HEXION™

Specialty Chemicals

product information

Hexion 752-4423

Hexion Specialty Chemical **752-4423** ***(AKA. Cargill's 8524A).*** 752-4423 has been tested under the requirements of ASTM-D635, ASTM-E84, ASTM-E162, ASTM-E662, UL 94-VO, and FMVSS-302 (DOT) transportation spec.

PART I - laminate thickness, 0.267" glass reinforced laminate with 40% filler by weight for ASTM E162, ASTM E662 & BSS 7239.

ASTM-E162 Ave Flame Spread Index (Is) = 129.66

ASTM-E662

	Ds 1.5 min	**Ds 4.0 min**
Smoke generation (flaming), Ave =	33.5	295.9
Smoke generation (non-flaming) Ave = 0.3		15.0

BSS 7239 Toxic Gas Testing

	PPM (average)	
CO	100	
HCN	0	
SO2	0	
HCL	0	
HF	0	
NOX	0	
AMBIENT TEMP =		67.5° F
RELATIVE HUMIDITY (%)=	53	
BAROMETRIC PRESSURE =	30.14 IN OF MERCURY	

UBC 26-6 "Ignition Properties of Plastics" (ASTM D 1929. 370°C (698°F)
Self-ignition temperature of plastics.

Laminate thickness 0.125", glass reinforced laminate, unfilled for ASTM-D635, DOT 302, and UL 94 VO & 5-VA, unless otherwise indicated.

ASTM-D635 Class CC1 = burn rate less than 1.0 inch per minute (self extinguishing)

FMVSS 302 Average burn rate = Self-Extinguishing

Hexion 752-4423

ANSI/UL 723 TUNNEL FLAME SPREAD, UL Laboratories, Inc. May 17, 2005.
TEST IS COMPARABLE TO ASTM E 84, NFPA No. 255 AND UBC Standard No. 42-1 and UBC Standard 8-1.

			NFPA	UBC
RESULTS	FLAME SPREAD INDEX (FSI) =	10	A	I
	SMOKE DENSITY INDEX (SDI) =	450		
	LAMINATE THICKNESS =	0.11 INCHES		

UL 94-V-O, 5-VA - LISTED PRODUCT – Component – Plastics (QMFZ2, QMFZ3); 94 V-O and 94-5VA; Acceptance date October 14, 1997. File Number E187617.

SAFETY & HANDLING

These products are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. Exposure to these materials should be minimized and avoided, if feasible, through the observance of proper precautions, use of appropriate engineering controls and proper personal protective clothing and equipment, and adherence to proper handling procedures. **None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheet (MSDS) for these and all other products being used are understood by all persons who work with them.** Questions and request for information on Hexion Specialty Chemicals, Inc. ("HEXION") products should be directed to your HEXION sales representative, or the nearest HEXION. sales office. Information and MSDS's on non-HEXION. products should be obtained from the respective manufacturer.

Hexion Specialty Chemicals

Composite Polymer Group

To whom it may concern:

I am writing this letter to list the fire qualifications of Hexion Specialty Chemicals' 752-448X (aka. Cargill's 085-8533). 752-448X has been tested under the requirements of MIL-R-21607, MIL-R-7575, ASTM-D635, ASTM-E84, ASTM-E162, and FMVSS-302 transportation spec.

A summary of the test results follows;

MIL-R-21607(SH) and MIL-R-7575 - 752-448X appears on the Qualified Product List (QPL) for the U. S. Navy for Grade 1 Applications and U. S. Coast Guard for Grade 1, Class A applications.

ASTM-D635 Average burn rate = Self Extinguishing.

ASTM-E162 Ave Flame Spread Index (Is) = 53.20

FMVSS 302 Average burn rate = Self Extinguishing

ASTM-E84 TUNNEL FLAME SPREAD
TEST IS COMPARABLE TO UL 723, NFPA No. 255 AND UBC No. 42-1.

			NFPA CLASS	UBC CLASS
TEST RESULTS	FLAME SPREAD=	20	A	I
	SMOKE DENSITY =	280		

NOMINAL LAMINATE THICKNESS = 0.10 INCHES

* 752-448X - fiberglass laminate thickness 0.125", glass reinforced laminate for ASTM-D635, FMVSS 302

* 752-448X - fiberglass laminate thickness, 0.115" glass reinforced laminate for ASTM E162

"X" REPRESENTS GEL TIME VARIATIONS, REPLACE X WITH THE FOLLOWING NUMBER TO OBTAIN A CORRECT PRODUCT NUMBER.

0 = SPI or heat cure system
1 = Gel time less than 7 minutes
2 = Gel time 8 - 10 minutes
3 = Gel time 11 - 13 minutes
4 = Gel time 14 - 16 minutes
5 = Gel time 17 - 19 minutes
6 = Gel time 20 - 25 minutes
7 = Gel time 26 - 30 minutes
8 = Gel time 31 or more minutes
9 = Gel time customer specific

MATERIAL SAFETY DATA SHEET
COATINGS, RESINS, AND RELATED MATERIALS

MANUFACTURED BY:
Resolution Specialty Materials LLC
400 East Cottage Place
Carpentersville, IL. 60110
EMERGENCY CONTACT :CHEMTREC 1-800-424-9300
(OUTSIDE US/CANADA:CHEMTREC 703-527-3887)
INFORMATION CONTACT: 1-800-323-5605 (DURING NORMAL BUSINESS HOURS)
DATE OF PREP: 3/01/01 SUPERSEDES DATE: 7/28/00 DATE OF PRINT: 5/04/01

SECTION I. PRODUCT IDENTIFICATION

PRODUCT CODE: (INTERNAL REF.#162)
752-4423
PRODUCT NAME :
UNSATURATED POLYESTER RESIN
SHIPPING DESCRIPTION:
RESIN SOLUTION,
3, UN 1866, PG III

RIGHT-TO-KNOW INFORMATION: 60.0 WT% 752-4423 POLYMER BASE
TRADE SECRET REGISTRY # MWT00572 (NJ&PA)

SECTION II. HAZARDOUS INGREDIENTS

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM
HEALTH: 2 * FLAMMABILITY: 3
REACTIVITY: 1

INGREDIENT / CAS NO.	WT. PERCENT	WORKPLACE EXPOSURE LIMITS ppm	mg/m3	SOURCE	VAPOR PRESSURE (mm Hg @68F)	LEL
STYRENE						
100-42-5	36.9					
		20.000	85.000	TWA/ACGIH TLV	4.30	1.10
		40.000	170.000	STEL/ACGIH TLV		
		100.000		TWA/OSHA PEL		
		600.000		STEL/OSHA PEL		
		200.000		CEILING/OSHA PEL		
		50.000	215.000	TWA/NIOSH REL		
		100.000	425.000	STEL/NIOSH REL		
		700.0		NIOSH IDLH		
TRIETHYL PHOSPHATE						
78-40-0	3.0	N/E	N/E	N/E	1.00	1.70

SECTION III. PHYSICAL DATA

BOILING RANGE: 148-415 F
SPECIFIC GRAVITY 1.285
VAPOR DENSITY (AIR=1): 2.719
VOLATILE ORGANIC CONTENT (VOC): N/A
APPEARANCE AND ODOR: light straw colored solution - styrene odor
SOLUBILITY IN WATER: negligible

PERCENT VOLATILE BY VOL: 55.86
EVAPORATION RATE (n-Bu Ac=1): 0.59
VAPOR PRESSURE (mm Hg@68F): 2.94

SECTION IV. FIRE AND EXPLOSION HAZARD DATA 752-4423(CONT.)

FLASH POINT: 89 DEG. F SETAFLASH OSHA CLASSIFICATION: IC
FLAMMABLE LIMITS % BY VOLUME IN AIR AT 212 DEG. F:
LOWER EXPLOSION LIMIT: 2.00
UPPER EXPLOSION LIMIT: 12.00

EXTINGUISHING MEDIA:
Use foam, carbon dioxide or chemical fire fighting apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS
Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Closed containers may explode when exposed to extreme heat.

SPECIAL FIRE FIGHTING PROCEDURES
The use of self-contained breathing apparatus is recommended for fire fighters. Water spray may be used for cooling containers to prevent possible pressure build-up and auto-ignition or explosion when exposed to extreme heat. Avoid spreading burning liquid with water used for cooling.

SECTION V. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE:
See Section II.

EFFECTS OF OVEREXPOSURE:
--- EYES CONTACT:
Severe irritation, redness, tearing and blurred vision.
--- SKIN CONTACT:
Prolonged or repeated exposure can cause moderate irritation, defatting, dermatitis and sensitization.
--- INHALATION:
Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea and headache. High concentrations may result in narcosis. (Central Nervous System depression)
--- INGESTION:
Can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration of material into lungs can cause chemical pneumonitis which can be fatal.

Chronic exposure may cause damage to the Central Nervous System, Respiratory System, Lungs, Eyes, Skin, Gastrointestinal Tract, Liver, Spleen and Kidneys.

OTHER HEALTH EFFECTS:
Based upon a re-evaluation of previous negative and equivocal data and an increased incidence of lung tumors after oral administration in young adult mice, the International Agency for Research on Cancer (IARC) has listed styrene among those materials for which there is limited evidence for carcinogenicity in animals.

SECTION V. HEALTH HAZARD DATA 752-4423(CONT.)

EMERGENCY AND FIRST AID PROCEDURES

--- EYES CONTACT:
Flush with clean, lukewarm water for at least 15 minutes, occasionally lifting the eyelids. Obtain medical attention.

--- SKIN CONTACT:
Remove contaminated clothing. Wash affected skin areas thoroughly with soap and water. Wash contaminated clothing thoroughly before re-use.

--- INHALATION:
Remove to fresh air. Apply artificial respiration or administer oxygen, if necessary. Call a physician immediately.

--- INGESTION:
Keep person warm, quiet and get immediate medical attention. Do not induce vomiting, because aspiration of material into the lungs from vomiting can cause chemical pneumonitis which can be fatal.

SECTION VI. REACTIVITY DATA

STABILITY:
Stable under normal conditions. Avoid exposure to excessive heat.

INCOMPATIBILITY:
Avoid contact with strong mineral acids, peroxides and polymerization catalysts.

HAZARDOUS POLYMERIZATION:
Can Occur.

HAZARDOUS DECOMPOSITION PRODUCTS:
Thermal decomposition may yield carbon dioxide and/or monoxide.

CALIFORNIA SCAQMD RULE 443.1:
This product contains photochemically reactive volatile organic compound(s). Refer to Section II and III.

SECTION VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Evacuate all non-essential personnel. Remove all sources of ignition. Ventilate the area. Equip employees with appropriate protection equipment (See Section VIII). Dike around spilled material. Cover spill with inert absorbent material and shovel with non-sparking tools into container. Remove containers to a safe area and seal.

WASTE DISPOSAL METHOD:
Waste material must be disposed of in accordance with federal, state, and local environmental regulatory controls.

SECTION VII. SPILL OR LEAK PROCEDURES 752-4423(CONT.)

SECTION VIII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:
Avoid breathing vapor or mist. If exposure may or does exceed occupational exposure limits (SEC.IV) use a NIOSH-approved respirator to prevent overexposure. In accord with 29CFR 1910.134 use either a full-face, atmosphere-supplying respirator or air-purifying respirator for organic vapors.

VENTILATION:
Local exhaust must be sufficient to keep airborne vapor concentrations below the TLV limit. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

PROTECTIVE GLOVES:
Polyvinyl alcohol gloves.

EYE PROTECTION:
Splash goggles.

OTHER PROTECTIVE EQUIPMENT:
Polyvinyl alcohol apron. Eye bath and safety shower. To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM:
See first page of MSDS.

SECTION IX. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
Drums: Protect against physical damage. Outside or detached storage preferred.
Bulk: Storage should be in standard flammable liquid storage tanks.

OTHER PRECAUTIONS:
All equipment should be grounded and bonded to reduce static electricity hazard. Use non-sparking tools.

Overexposure to material has apparently been found to cause the following effects in laboratory animals: liver abnormalities, kidney damage, lung damage.

RECENT DATA DOES NOT SUPPORT THE CHANGE IN THE CLASSIFICATION BY IARC OF STYRENE TO BE A SUSPECTED CARCINOGEN.

At the conclusion of a major notice and comment

rulemaking revising its air contaminants regulations, OSHA concluded that the "current evidence on styrene's carcinogenicity does not support its classification in the final rule as a carcinogen." 54 Fed. Reg. 2430 (Jan. 19, 1989); see also 54 Fed. Reg. at 2364. In the same rulemaking, the National Institute for Occupational Safety and Health (NIOSH) commented that there "seems to be little basis from the experimental animal investigations or epidemiologic studies to conclude at this time that styrene is carcinogenic." Moreover, other scientists have independently concluded that styrene does not present a carcinogenic risk to humans. I. C. Munro, et al. "A Review of Styrene Pharmacokinetics and Carcinogenicity" (July 21, 1989)(CanTox Inc.)(U.S. EPA Safe Drinking Water Docket No. IID, Document III J2.86, Attachment C).

OTHER COMMENTS

We recommend that containers be either professionally reconditioned for reuse by certified firms or properly disposed of by certified firms to help reduce the possibility of an accident. Disposal of containers should be in accordance with applicable federal, state and local laws and regulations. "Empty" drums should not be given to individuals.

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any representation or warranty, expressed or implied, regarding its accuracy or completeness.

The conditions of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

E N V I R O N M E N T A L D A T A S H E E T

***** MUST NOT BE DETACHED FROM MATERIAL SAFETY DATA SHEET *****

*** IF MSDS IS COPIED AND REDISTRIBUTED, THIS NOTICE MUST BE ATTACHED ***

MANUFACTURED BY: Resolution Specialty Materials LLC
400 East Cottage Place
Carpentersville, IL. 60110

LAST CHANGE: 3/01/00

PRODUCT NAME: 752-4423
PRODUCT CLASS: UNSATURATED POLYESTER RESIN

SECTION I. PRODUCT IDENTIFICATION/COMPOSITION

PROD	COMPONENT	CAS NUMBER	PERCENT
P	UNSATURATED POLYESTER RESIN	MIXTURE	100
---	---TYPICAL DISTRIBUTION OF HAZARDOUS COMPONENTS--	---	---
1	STYRENE	100-42-5	36.9
2	TRIETHYL PHOSPHATE	78-40-0	3.0

SECTION II. SARA TITLE III INFORMATION

PROD	EHS RQ (LBS) (*1)	EHS TPQ (LBS) (*2)	SEC 313 (*3)	311/312 CATEGORIES (*4)
P	2,702,703			1 3 4 5
1			YES	1 3 4 5
2			NO	3 4

FOOTNOTES

*1 = REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE, SARA SEC.302/304
*2 = THRESHOLD PLANNING QUANTITY, EXTREMELY HAZARDOUS SUBSTANCE, SARA SEC 302
*3 = TOXIC CHEMICAL, SARA SEC 313
*4 = HAZARD CATEGORY FOR SARA SEC. 311/312 REPORTING
1 = FIRE HAZARD
2 = SUDDEN RELEASE OF PRESSURE HAZARD
3 = REACTIVE HAZARD
4 = IMMEDIATE (ACUTE) HEALTH HAZARD
5 = DELAYED (CHRONIC) HEALTH HAZARD

SECTION III. DOT/CERCLA INFORMATION

THE CERCLA REPORTABLE QUANTITY (RQ) FOR THIS MIXTURE IS 2,714 LBS.
WHICH IS BASED ON THE RQ OF EACH INGREDIENT AND ITS PERCENT IN MIXTURE.

SECTION IV. ADDITIONAL REGULATORY INFORMATION

THE POLYMER AND ALL COMPONENTS OF THIS PRODUCT ARE PRESENT ON THE UNITED STATES TOXIC SUBSTANCES CONTROL ACT (TSCA) CHEMICAL SUBSTANCES INVENTORY.

THE POLYMER OR ANOTHER COMPONENT OF THIS PRODUCT IS NOT PRESENT ON THE CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) DOMESTIC SUBSTANCES LIST (DSL).

SECTION V.	DISCLAIMER	752-4423(CONT.)

THE INFORMATION IN THIS MSDS AND ENVIRONMENTAL DATA SHEET WAS OBTAINED FROM SOURCES WHICH WE BELIEVE ARE RELIABLE. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED, REGARDING ITS ACCURACY OR COMPLETENESS.

Revd. 9-26-01 PM1

M A T E R I A L S A F E T Y D A T A S H E E T
COATINGS, RESINS, AND RELATED MATERIALS

MANUFACTURED BY:
Eastman Chemical Company
200 East Cottage Place
Carpentersville, IL. 60110
EMERGENCY CONTACT :CHEMTREC 1-800-424-9300
(OUTSIDE US/CANADA:CHEMTREC 703-527-3887)
INFORMATION CONTACT:1-888-CALL-MWT (DURING NORMAL BUSINESS HOURS)
DATE OF PREP: 3/01/01 SUPERSEDES DATE: 7/28/00 DATE OF PRINT: 3/20/01

SECTION I. PRODUCT IDENTIFICATION

PRODUCT CODE: (INTERNAL REF.#162)
752-4423
PRODUCT NAME :
UNSATURATED POLYESTER RESIN
SHIPPING DESCRIPTION:
RESIN SOLUTION,
3, UN 1866, PG III
MARINE POLLUTANT, CONTAINS:
STYRENE
RIGHT-TO-KNOW INFORMATION: 60.0 WT% 752-4423 POLYMER BASE
TRADE SECRET REGISTRY # MWT00572 (NJ&PA)

SECTION II. HAZARDOUS INGREDIENTS

* WARNING * THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS AND OTHER REPRODUCTIVE HARM.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM
HEALTH: 2 * FLAMMABILITY: 3
REACTIVITY: 1

INGREDIENT / CAS NO.	WT. PERCENT	WORKPLACE EXPOSURE LIMITS ppm	mg/m3	SOURCE	VAPOR PRESSURE (mm Hg @68F)	LEL
STYRENE						
100-42-5	36.9					
		20.000	85.000	TWA/ACGIH TLV	4.30	1.10
		40.000	170.000	STEL/ACGIH TLV		
		100.000		TWA/OSHA PEL		
		600.000		STEL/OSHA PEL		
		200.000		CEILING/OSHA PEL		
		50.000	215.000	TWA/NIOSH REL		
		100.000	425.000	STEL/NIOSH REL		
		700.0		NIOSH IDLH		
TRIETHYL PHOSPHATE						
78-40-0	3.0					
		N/E	N/E	N/E	1.00	1.70

SECTION II. HAZARDOUS INGREDIENTS 752-4423(CONT.)

INGREDIENT CAS NO.	WT. PERCENT	WORKPLACE EXPOSURE LIMITS ppm	WORKPLACE EXPOSURE LIMITS mg/m3	SOURCE	VAPOR PRESSURE (mm Hg @68F)	LEL

SECTION III. PHYSICAL DATA

BOILING RANGE: 148-415 F
SPECIFIC GRAVITY 1.285
VAPOR DENSITY (AIR=1): 2.719
VOLATILE ORGANIC CONTENT (VOC): N/A
APPEARANCE AND ODOR: light straw colored solution - styrene odor
SOLUBILITY IN WATER: negligible
PERCENT VOLATILE BY VOL: 55.86
EVAPORATION RATE (n-Bu Ac=1): 0.59
VAPOR PRESSURE (mm Hg@68F): 2.94

SECTION IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 89 DEG. F SETAFLASH OSHA CLASSIFICATION: IC
FLAMMABLE LIMITS % BY VOLUME IN AIR AT 212 DEG. F:
LOWER EXPLOSION LIMIT: 2.00
UPPER EXPLOSION LIMIT: 12.00

EXTINGUISHING MEDIA:
Use foam, carbon dioxide or chemical fire fighting apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS
Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Closed containers may explode when exposed to extreme heat.

SPECIAL FIRE FIGHTING PROCEDURES
The use of self-contained breathing apparatus is recommended for fire fighters. Water spray may be used for cooling containers to prevent possible pressure build-up and auto-ignition or explosion when exposed to extreme heat. Avoid spreading burning liquid with water used for cooling.

SECTION V. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE:
See Section II.

EFFECTS OF OVEREXPOSURE:
--- EYES CONTACT:
Severe irritation, redness, tearing and blurred vision.
--- SKIN CONTACT:
Prolonged or repeated exposure can cause moderate irritation, defatting, dermatitis and sensitization.
--- INHALATION:
Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea and headache. High concentrations may result in narcosis. (Central Nervous System depression)

--- INGESTION:
Can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration of material into lungs can cause chemical pneumonitis which can be fatal.

Chronic exposure may cause damage to the Central Nervous System, Respiratory System, Lungs, Eyes, Skin, Gastrointestinal Tract, Liver, Spleen and Kidneys.

OTHER HEALTH EFFECTS:
Based upon a re-evaluation of previous negative and equivocal data and an increased incidence of lung tumors after oral administration in young adult mice, the International Agency for Research on Cancer (IARC) has listed styrene among those materials for which there is limited evidence for carcinogenicity in animals.

EMERGENCY AND FIRST AID PROCEDURES
--- EYES CONTACT:
Flush with clean, lukewarm water for at least 15 minutes, occasionally lifting the eyelids. Obtain medical attention.
--- SKIN CONTACT:
Remove contaminated clothing. Wash affected skin areas thoroughly with soap and water. Wash contaminated clothing thoroughly before re-use.
--- INHALATION:
Remove to fresh air. Apply artificial respiration or administer oxygen, if necessary. Call a physician immediately.
--- INGESTION:
Keep person warm, quiet and get immediate medical attention. Do not induce vomiting, because aspiration of material into the lungs from vomiting can cause chemical pneumonitis which can be fatal.

SECTION VI. REACTIVITY DATA

STABILITY:
Stable under normal conditions. Avoid exposure to excessive heat.

INCOMPATIBILITY:
Avoid contact with strong mineral acids, peroxides and polymerization catalysts.

HAZARDOUS POLYMERIZATION:
Can Occur.

HAZARDOUS DECOMPOSITION PRODUCTS:
Thermal decomposition may yield carbon dioxide and/or monoxide.

CALIFORNIA SCAQMD RULE 443.1:
This product contains photochemically reactive volatile organic compound(s). Refer to Section II and III.

storage preferred.
Bulk: Storage should be in standard flammable liquid storage tanks.

OTHER PRECAUTIONS:
All equipment should be grounded and bonded to reduce static electricity hazard. Use non-sparking tools.

Overexposure to material has apparently been found to cause the following effects in laboratory animals: liver abnormalities, kidney damage, lung damage.

RECENT DATA DOES NOT SUPPORT THE CHANGE IN THE CLASSIFICATION BY IARC OF STYRENE TO BE A SUSPECTED CARCINOGEN.

> At the conclusion of a major notice and comment rulemaking revising its air contaminants regulations, OSHA concluded that the "current evidence on styrene's carcinogenicity does not support its classification in the final rule as a carcinogen." 54 Fed. Reg. 2430 (Jan. 19, 1989); see also 54 Fed. Reg. at 2364. In the same rulemaking, the National Institute for Occupational Safety and Health (NIOSH) commented that there "seems to be little basis from the experimental animal investigations or epidemiologic studies to conclude at this time that styrene is carcinogenic." Moreover, other scientists have independently concluded that styrene does not present a carcinogenic risk to humans. I. C. Munro, et al. "A Review of Styrene Pharmacokinetics and Carcinogenicity" (July 21, 1989)(CanTox Inc.)(U.S. EPA Safe Drinking Water Docket No. IID, Document III J2.86, Attachment C).

OTHER COMMENTS

We recommend that containers be either professionally reconditioned for reuse by certified firms or properly disposed of by certified firms to help reduce the possibility of an accident. Disposal of containers should be in accordance with applicable federal, state and local laws and regulations. "Empty" drums should not be given to individuals.

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any representation or warranty, expressed or implied, regarding its accuracy or completeness.

SECTION VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Evacuate all non-essential personnel. Remove all sources of ignition. Ventilate the area. Equip employees with appropriate protection equipment (See Section VIII). Dike around spilled material. Cover spill with inert absorbent material and shovel with non-sparking tools into container. Remove containers to a safe area and seal.

WASTE DISPOSAL METHOD:
Waste material must be disposed of in accordance with federal, state, and local environmental regulatory controls.

SECTION VIII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:
Avoid breathing vapor or mist. If exposure may or does exceed occupational exposure limits (SEC.IV) use a NIOSH-approved respirator to prevent overexposure. In accord with 29CFR 1910.134 use either a full-face, atmosphere-supplying respirator or air-purifying respirator for organic vapors.

VENTILATION:
Local exhaust must be sufficient to keep airborne vapor concentrations below the TLV limit. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

PROTECTIVE GLOVES:
Polyvinyl alcohol gloves.

EYE PROTECTION:
Splash goggles.

OTHER PROTECTIVE EQUIPMENT:
Polyvinyl alcohol apron. Eye bath and safety shower. To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM:
See first page of MSDS.

SECTION IX. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
Drums: Protect against physical damage. Outside or detached

The conditions of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

E N V I R O N M E N T A L D A T A S H E E T

***** MUST NOT BE DETACHED FROM MATERIAL SAFETY DATA SHEET *****

*** IF MSDS IS COPIED AND REDISTRIBUTED, THIS NOTICE MUST BE ATTACHED ***

MANUFACTURED BY: Eastman Chemical Company
400 East Cottage Place
Carpentersville, IL. 60110

DATE OF LAST CHANGE: 7/28

PRODUCT NAME: 752-4423
PRODUCT CLASS: UNSATURATED POLYESTER RESIN

SECTION I. PRODUCT IDENTIFICATION/COMPOSITION

PROD	COMPONENT	CAS NUMBER	PERCENT
P	UNSATURATED POLYESTER RESIN	MIXTURE	100
---	---TYPICAL DISTRIBUTION OF HAZARDOUS COMPONENTS--	---	---
1	STYRENE	100-42-5	36.9
2	TRIETHYL PHOSPHATE	78-40-0	3.0

SECTION II. SARA TITLE III INFORMATION

PROD	EHS RQ (LBS) (*1)	EHS TPQ (LBS) (*2)	SEC 313 (*3)	311/312 CATEGORIES (*4)
P	2,702,703			1 3 4 5
1			YES	1 3 4 5
2			NO	3 4

FOOTNOTES

*1 = REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE, SARA SEC.302/304
*2 = THRESHOLD PLANNING QUANTITY, EXTREMELY HAZARDOUS SUBSTANCE, SARA SEC.302
*3 = TOXIC CHEMICAL, SARA SEC 313
*4 = HAZARD CATEGORY FOR SARA SEC. 311/312 REPORTING
1 = FIRE HAZARD
2 = SUDDEN RELEASE OF PRESSURE HAZARD
3 = REACTIVE HAZARD
4 = IMMEDIATE (ACUTE) HEALTH HAZARD
5 = DELAYED (CHRONIC) HEALTH HAZARD

SECTION III. DOT/CERCLA INFORMATION

THE CERCLA REPORTABLE QUANTITY (RQ) FOR THIS MIXTURE IS 2,714 LBS.
WHICH IS BASED ON THE RQ OF EACH INGREDIENT AND ITS PERCENT IN MIXTURE.

SECTION IV. ADDITIONAL REGULATORY INFORMATION

THE POLYMER AND ALL COMPONENTS OF THIS PRODUCT ARE PRESENT ON THE UNITED STATES TOXIC SUBSTANCES CONTROL ACT (TSCA) CHEMICAL SUBSTANCES INVENTORY.

THE POLYMER OR ANOTHER COMPONENT OF THIS PRODUCT IS NOT PRESENT ON THE CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) DOMESTIC SUBSTANCES ST (DSL).