

**GHS COMPLIANT SAFETY DATA SHEET**

TO COMPLY WITH OSHA HAZARD COMMUNICATION STANDARD 29 CFR.1910.1200  
& THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS

**SECTION 1: IDENTIFICATION**

PRODUCT NAME	Resiflow® L-45D
MFR.'S CODE ID/SYNONYMS	Resiflow® L-45D
CAS NUMBER	Mixture (see Sections 3 or 8)
PRODUCT USE	Acrylic Polymer Solution
RESTRICTIONS ON USE	For industrial use only
MANUFACTURER/SUPPLIER	Estron Chemical, Inc.
ADDRESS	807 North Main Street, Calvert City, KY 42029 USA
GENERAL INFORMATION	(270) 395-4195
EMERGENCY TELEPHONE	CHEMTREC (800) 424-9300






**SECTION 2: HAZARDS IDENTIFICATION**

**Signal Word:** *Danger*

**GHS Classification**

Physical	Health	Environmental
Flammable Liquids – Category 3	Acute Toxicity (Oral, Inhalation) – Category 4 Skin Corrosion/Irritation – Category 2 Eye Damage/Irritation – Category 1 Germ Cell Mutagenicity – Category 1B Carcinogenicity – Category 1B Toxic to Reproduction – Category 2 Specific Target Organ Toxicity, Single Exposure (Respiratory System) – Category 3 Specific Target Organ Toxicity, Repeated Exposure (Central Nervous System) – Category 1 Aspiration Hazard – Category 1	Hazardous to the Aquatic Environment, Acute Hazard – Category 2 Hazardous to the Aquatic Environment, Chronic Hazard – Category 2

**GHS Label**

<p><b>Symbols:</b> Flame  Corrosion  Health Hazard  Exclamation Mark  Environment </p>	<p><b>Hazard Statements</b> H226: Flammable liquid and vapour H302: Harmful if swallowed H304: May be fatal if swallowed and enters airways H315: Causes skin irritation H318: Causes serious eye damage H332: Harmful if inhaled H335: May cause respiratory irritation H336: May cause drowsiness or dizziness H340: May cause genetic defects H350: May cause cancer H361: Suspected of damaging fertility or the unborn child H372: Causes damage to organs (Central Nervous System) through prolonged or repeated exposure H411: Toxic to aquatic life with long lasting effects</p>	<p><b>Precautionary Statements</b> <i>Prevention</i> P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking. P233: Keep container tightly closed. P240: Ground/bond container and receiving equipment. P241: Use explosion-proof electrical/ventilating/light/equipment. P242: Use only non-sparking tools. P243: Take precautionary measures against static discharge. P260: Do not breathe dust/fume/gas/mist/vapours/spray. P264: Wash exposed skin thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P271: Use only outdoors or in a well-ventilated area. P273: Avoid release to the environment. P280: Wear protective gloves/protective clothing/eye protection/face protection.</p>
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	<p><i>Response</i>  P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  P302+352: IF ON SKIN: Wash with soap and water.  P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.  P308+313: IF exposed or concerned: Get medical advice/attention.  P310: Immediately call a POISON CENTER or doctor/physician.  P321: Specific treatment (see supplemental first aid instructions on this label)  P330: Rinse mouth.  P331: Do NOT induce vomiting.  P332+313: If skin irritation occurs: Get medical advice/attention.  P362+P364: Take off contaminated clothing and wash it before reuse.  P370+378: In case of fire: Use foam, dry chemical powder or carbon dioxide to extinguish.  P391: Collect spillage.</p> <p><i>Storage</i>  P403+233+235: Store in a well ventilated place. Keep container tightly closed. Keep cool.  P405: Store locked up.</p> <p><i>Disposal</i>  P501: Dispose of contents/container to an authorized hazardous waste handler.</p>
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HAZARDS NOT OTHERWISE CLASSIFIED: None identified.

### **SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS**

<b>HAZARDOUS INGREDIENTS</b>	<b>CAS #</b>	<b>%</b>	<b>CLASSIFICATION</b>	<b>H CODES</b>
Light Aromatic Solvent Naphtha	64742-95-6	12.0 – 18.0	Flammable Liquids – Category 3 Acute Toxicity (Inhalation) – Category 4 Skin Corrosion/Irritation – Category 2 Eye Damage/Irritation – Category 2A Germ Cell Mutagenicity – Category 1B Carcinogenicity – Category 1B Toxic to Reproduction – Category 2 Specific Target Organ Toxicity, Single Exposure (Respiratory System) – Category 3 Specific Target Organ Toxicity, Repeated Exposure (Central Nervous System) – Category 1 Aspiration Hazard – Category 1 Hazardous to the Aquatic Environment, Acute Hazard – Category 2 Hazardous to the Aquatic Environment, Chronic Hazard – Category 2	H226 H332 H315 H319 H340 H350 H361 H335 H372 H304 H401 H411
n-Butyl Alcohol	71-36-3	3.0 – 7.0	Flammable Liquids – Category 3 Acute Toxicity (Oral) – Category 4 Skin Corrosion/Irritation – Category 2 Eye Damage/Irritation – Category 1 Specific Target Organ Toxicity, Single Exposure (Respiratory System, Central Nervous System) – Category 3 Aspiration Hazard – Category 1	H226 H302 H315 H318 H335 & H336 H304

Component Breakdown of Light Aromatic Solvent Naphtha:

Light Aromatic Solvent Naphtha	64742-95-6	6.6 – 18.0	Flammable Liquids – Category 3 Acute Toxicity (Inhalation) – Category 4 Skin Corrosion/Irritation – Category 2 Eye Damage/Irritation – Category 2A Carcinogenicity – Category 2 Specific Target Organ Toxicity, Single Exposure (Respiratory System) – Category 3 Specific Target Organ Toxicity, Repeated Exposure (Central Nervous System) – Category 2 Aspiration Hazard – Category 1 Hazardous to the Aquatic Environment, Acute Hazard – Category 2 Hazardous to the Aquatic Environment, Chronic Hazard – Category 2
Mixed Trimethylbenzenes	25551-13-7	6.0 – 12.6	Flammable Liquids – Category 3 Acute Toxicity (Inhalation) – Category 4 Skin Irritation – Category 2 Eye Irritation – Category 2A Specific Target Organ Toxicity, Single Exposure (Respiratory System) – Category 3 Aspiration Hazard – Category 1 Hazardous to the Aquatic Environment, Acute Hazard – Category 2 Hazardous to the Aquatic Environment, Chronic Hazard – Category 2
Cumene	98-82-8	0.0 – 1.8	Flammable Liquids – Category 3 Specific Target Organ Toxicity, Single Exposure (Respiratory System) – Category 3 Aspiration Hazard – Category 1 Hazardous to the Aquatic Environment, Acute Hazard – Category 2 Hazardous to the Aquatic Environment, Chronic Hazard – Category 2
Mixed Xylenes	1330-20-7	0.0 – 1.4	Flammable Liquids – Category 3 Acute Toxicity (Dermal, Inhalation) – Category 4 Skin Corrosion/Irritation – Category 2 Eye Damage/Irritation – Category 2A Carcinogenicity – Category 2 Toxic to Reproduction – Category 2 Specific Target Organ Toxicity, Single Exposure (Respiratory System) – Category 3 Specific Target Organ Toxicity, Repeated Exposure (Liver, Kidney, Central Nervous System) – Category 2 Aspiration Hazard – Category 1 Hazardous to the Aquatic Environment, Acute Hazard – Category 2 Hazardous to the Aquatic Environment, Chronic Hazard – Category 2
3-Ethyltoluene	620-14-4	0.0 – 3.6	Flammable Liquids – Category 3 Hazardous to the Aquatic Environment, Acute Hazard – Category 2 Hazardous to the Aquatic Environment, Chronic Hazard – Category 2
2-Ethyltoluene	611-14-3	0.0 – 1.6	Flammable Liquids – Category 3 Aspiration Hazard – Category 1
4-Ethyltoluene	622-96-8	0.0 – 1.6	Flammable Liquids – Category 3 Aspiration Hazard – Category 1
Propylbenzene	103-65-1	0.0 – 1.3	Flammable Liquids – Category 3 Specific Target Organ Toxicity, Single Exposure (Respiratory System) – Category 3 Aspiration Hazard – Category 1 Hazardous to the Aquatic Environment, Acute Hazard – Category 2 Hazardous to the Aquatic Environment, Chronic Hazard – Category 2

(See Section 8 for Exposure Limits)

NON-HAZARDOUS INGREDIENTS	CAS #	%
Acrylic Polymer	Proprietary	78.0 – 82.0

**SECTION 4: FIRST-AID MEASURES**

**SYMPTOMS OF EXPOSURE**

ACUTE	Serious eye damage. Skin or respiratory tract irritation. Coughing or sneezing. Drowsiness or dizziness. Suspected of damaging fertility or the unborn child. May cause genetic defects.
DELAYED	Stinging, tearing, redness and swelling of the eyes. Drying, cracking, redness or burning of the skin. Respiratory tract irritation, difficulty breathing. Suspected of damaging fertility or the unborn child. May cause genetic defects. May cause cancer. Damage to Central Nervous System.

INHALATION	Harmful if inhaled. Do not breathe vapours, mists or dusts. Symptoms include possible discomfort; cough, sneezing, drowsiness or dizziness. If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing.
SKIN CONTACT	Causes skin irritation. Take off contaminated clothing. Rinse skin with water/shower. Prolonged or repeated contact may dry the skin. If skin irritation occurs: Get medical advice/attention.
EYE CONTACT	Causes serious eye damage. Immediately call a POISON CENTER or doctor/physician. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists get medical advice/attention.
INGESTION	May be fatal if swallowed and enters airways. Harmful if swallowed. Do NOT induce vomiting. If ingested, immediately call a POISON CENTER or doctor/physician. Rinse mouth.
SPECIFIC TREATMENT	No other specific treatments are known or have been identified.

## **SECTION 5: FIRE FIGHTING MEASURES**

FLAMMABILITY CLASSIFICATION	Flammable Liquid Class IC (U.S.) Flammable Liquids – Category 3 (GHS)
FLAMMABLE LIMITS	LEL: 1.1 %, by volume of solvent. UEL: 7.7 %, by volume of solvent.
HAZARDOUS COMBUSTION PRODUCTS	Carbon Dioxide, Carbon Monoxide.
EXTINGUISHING MEDIA	Dry Chemical, Foam, CO <sub>2</sub>
UNUSUAL FIRE AND EXPLOSION HAZARDS	Solvent vapors may travel in the work place. Since even residual amounts can ignite explosively, ensure all ignition sources are removed from the area. Solid streams of water may spread fire.
SPECIAL FIRE FIGHTING PROCEDURES	Wear self-contained breathing apparatus and protective suit when fighting fire. Solid streams of water may spread the fire. Do not allow run-off to enter public drainage systems or open water courses.
SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS	As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full (Bunker) protective gear.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

PERSONAL PRECAUTIONS	Prevent contact with skin, eyes and clothing. Ensure adequate ventilation.
PROTECTIVE EQUIPMENT	See Personal Protective Equipment in Section 8.
EMERGENCY PROCEDURES	Avoid unnecessary exposure to bystanders, prevent contact with open flames or high heat sources. Isolate the area and eliminate all ignition sources. Ground and bond all containers and handling equipment. Pump with explosion-proof equipment.
ENVIRONMENTAL PRECAUTIONS	Obey relevant local, state, provincial and federal laws and regulations. Do not allow the product to enter public drainage systems or open water courses.
METHODS AND MATERIALS FOR CLEANING UP	Absorb the product onto vermiculite, floor absorbent or other absorbent materials, such as dry-lime, sand, or soda ash. Sweep or scoop into a suitable container for disposal. Ventilate area and wash spill site after material pickup is complete.

## **SECTION 7: HANDLING AND STORAGE**

PRECAUTIONS FOR SAFE HANDLING	Do not ingest. Prevent contact with the eyes, skin and clothing. Wash thoroughly after handling. Do not breathe vapors. Do not eat, drink or smoke when using this product. Use with adequate ventilation. Ground and bond all containers and handling equipment. Handle in accordance with good industrial hygiene and safety practice. Take precautionary measures against static discharges. Emptied containers may still be hazardous. Do not cut, drill, grind, weld or perform similar actions on or near empty containers.
CONDITIONS FOR SAFE STORAGE	Keep container tightly closed and store in a dry, well ventilated area away from extreme heat, open flame or sources of ignition. Store locked up.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

INGREDIENTS	CAS #	%	ACGIH TLV	OSHA PEL
Acrylic Polymer	Proprietary	78.0 – 82.0	<i>None established</i>	<i>None established</i>
n-Butyl Alcohol	71-36-3	3.0 – 7.0	20 ppm	50 ppm
Light Aromatic Solvent Naphtha	64742-95-6	12.0 – 18.0	25 ppm	100 ppm
<i>Mixed Trimethylbenzenes</i>	25551-13-7	6.0 – 12.6	25 ppm	25 ppm
<i>Cumene</i>	98-82-8	0.0 – 1.8	50 ppm	50 ppm
<i>Mixed Xylenes</i>	1330-20-7	0.0 – 1.4	100 ppm	100 ppm
<i>3-Ethyltoluene</i>	620-14-4	0.0 – 3.6	<i>No data available</i>	<i>No data available</i>
<i>2-Ethyltoluene</i>	611-14-3	0.0 – 1.6	<i>No data available</i>	<i>No data available</i>
<i>4-Ethyltoluene</i>	622-96-8	0.0 – 1.6	<i>No data available</i>	<i>No data available</i>
<i>Propylbenzene</i>	103-65-1	0.0 – 1.3	<i>Not applicable</i>	<i>Not applicable</i>

APPROPRIATE ENGINEERING CONTROLS Showers, eyewash stations and explosion-proof ventilation systems.

### PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE	Chemical splash goggles or face shield.
SKIN	Wear resistant gloves (consult you safety equipment supplier) and impervious protective clothing as appropriate to prevent skin contact.
RESPIRATORY	An appropriate NIOSH approved respirator where exposure limits are exceeded.
HYGIENE MEASURES	Handle in accordance with good industrial hygiene and safety practices. When using, do not eat, drink or smoke. Wash face and hands before breaks and at the end of work. Wash contaminated clothing before re-use.

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Clear to hazy liquid	ODOR	Strong, aromatic
ODOR THRESHOLD	No test data available	pH	No test data available
MELTING POINT	No test data available	BOILING POINT/RANGE	116 - 179 °C @ 760 mmHg
FLASH POINT	35 °C (95 °F), closed cup	EVAPORATION RATE	No test data available
FLAMMABILITY	Flammable Liquid Class IC (U.S.), Flammable Liquids – Category 3 (GHS)		
FLAMMABLE LIMITS	LOWER 1.1 %, <i>by volume of solvent</i>	UPPER 7.7 %, <i>by volume of solvent</i>	
VAPOR PRESSURE	2.6 mmHg @ 20 °C	VAPOR DENSITY	No test data available
RELATIVE DENSITY	0.98 – 1.02 @ 20 °C	SOLUBILITY IN H <sub>2</sub> O	Solvent – Partly soluble Polymer – Negligible
PARTITION COEFFICIENT (n-octanol/water)	<i>See component information in Section 12.</i>	AUTOIGNITION TEMPERATURE	343 °C (649 °F)
DECOMPOSITION TEMPERATURE	> 250 °C (Polymer)	VISCOSITY	No test data available
% VOLATILE	18 – 22%	SOFTENING POINT	No test data available

## **SECTION 10: STABILITY AND REACTIVITY**

REACTIVITY	This product does not pose a significant reactivity hazard when stored appropriately (see Section 7).
STABILITY	This product is stable when stored appropriately (see Section 7).
CONDITIONS TO AVOID	All ignition sources, heat and open flames.
INCOMPATIBLE PRODUCTS	Strong oxidizers, acids, alkalis and amines.
HAZARDOUS DECOMPOSITION PRODUCTS	Carbon Dioxide, Carbon Monoxide.
POSSIBILITY OF HAZARDOUS REACTIONS	Will not occur

## **SECTION 11: TOXICOLOGICAL INFORMATION**

### **SYMPTOMS OF EXPOSURE**

ACUTE	Serious eye damage. Skin or respiratory tract irritation. Coughing or sneezing. Drowsiness or dizziness. Suspected of damaging fertility or the unborn child. May cause genetic defects.
DELAYED	Stinging, tearing, redness and swelling of the eyes. Drying, cracking, redness or burning of the skin. Respiratory tract irritation, difficulty breathing. Suspected of damaging fertility or the unborn child. May cause genetic defects. May cause cancer. Damage to Central Nervous System.

### **ACUTE TOXICITY**

INHALATION	Harmful if inhaled. Suspected of causing cancer. May cause drowsiness or dizziness. May cause genetic defects. May cause damage to organs (Liver, Kidney, Central Nervous System) through prolonged or repeated exposure.
SKIN	Causes skin irritation.
EYES	Causes serious eye damage.
INGESTION	May be fatal if swallowed and enters airways. Harmful if swallowed. May cause genetic defects. May cause damage to organs (Liver, Kidney, Central Nervous System) through prolonged or repeated exposure.

INHALATION TOXICITY	LC <sub>50</sub> Rat, 4 h	Solvent Naphtha n-Butyl Alcohol Polymers	4.5 mg/l 8000 ppm Not established
DERMAL TOXICITY	LD <sub>50</sub> Rabbit	Solvent Naphtha n-Butyl Alcohol Polymers	3,268 mg/kg 3,400 mg/kg Not established
SKIN IRRITATION	Draize, Rabbit, 4 hours	Solvent Naphtha n-Butyl Alcohol	Irritating to skin. May cause skin irritation in susceptible persons. Irritating to skin. May cause skin irritation in susceptible persons.
EYE IRRITATION	Draize, Rabbit	Solvent Naphtha n-Butyl Alcohol	Irritating to eyes. May cause irreversible eye damage. Severely irritating to the eyes. Risk of serious damage to the eyes.
ORAL TOXICITY	LD <sub>50</sub> Rat	Solvent Naphtha n-Butyl Alcohol Polymers	2,900 mg/kg 790 mg/kg Not established
SENSITIZATION	Buehler, Guinea Pig	Solvents	Did not cause sensitization on laboratory animals.

### **CHRONIC EFFECTS**

#### **CARCINOGENICITY**

64742-95-6

Solvent components are suspected of causing cancer.

Species: rat, (male and female)  
Application Route: Inhalation  
Exposure time: 113 wk  
Dose: 0, 322, 1402, 9869 mg/m<sup>3</sup>  
Frequency of Treatment: 6 h/day, Sd/week  
Method: OECD Test Guideline 451  
Symptoms: weight loss  
GLP: yes

		Species: mouse, (male) Application Route: Dermal Exposure time: 102 wk Dose: 0.05 ml neat Frequency of Treatment: 3 days/week Method: OECD Test Guideline 451 GLP: No data available
	Carcinogenicity - Assessment	Possible human carcinogen
25551-13-7	Carcinogenicity - Assessment	Possible human carcinogen
98-82-8		Species: rat, (male and female) Application Route: inhalation (gas) Exposure time: 105 wk Activity duration: 6 h Dose: 0, 250, 500, or 1,000 ppm ppm Frequency of Treatment: 5 days/week LOAEL: 250 ppm  Method: OECD Test Guideline 451 Result: Animal carcinogen with unknown relevance to humans Symptoms: Renal tubule adenoma and carcinoma GLP: yes
		Species: mouse, (male and female) Application Route: inhalation (gas) Exposure time: 105 wk Activity duration: 6 h Dose: 0, 125 (f), 250, 500, 1000 (m) ppm Frequency of Treatment: 5 days/week LOAEL: 125 ppm  Method: OECD Test Guideline 451 Result: Animal carcinogen with unknown relevance to humans Symptoms: increased incidences of alveolar/bronchiolar neoplasms GLP: yes
	Carcinogenicity - Assessment	Suspected human carcinogens
1330-20-7		Species: mouse, (male and female) Application Route: Oral Exposure time: 103 wk Dose: 0, 500 or 1000 mg/kg Frequency of Treatment: 5 days/week Method: Directive 67 /548/EEC, Annex V, B.32. Result: did not display carcinogenic properties GLP: No data available
	Carcinogenicity - Assessment	Animal testing did not show any carcinogenic effects.
<b>MUTAGENIC EFFECTS</b>		
64742-95-6	Genotoxicity in vitro	Solvent components caused some positive result(s) from in vivo heritable germ cell mutagenicity tests in mammals. Test Type: Ames test Test species: Salmonella typhimurium Metabolic activation: with and without metabolic activation Result: positive GLP: No data available
	Genotoxicity in vivo	Test Type: In vivo micronucleus test Test species: rat (male and female) Application Route: Inhalation Exposure time: 6 h/day, Sd/wk, for 4 weeks Dose: 0,2000, 10000,20000 mg/m3 Result: positive GLP: yes

	Germ cell mutagenicity-Assessment	Positive result(s) from in vivo heritable germ cell mutagenicity tests in mammals
71-36-3	Genotoxicity in vitro	<p>Test Type: Chromosome aberration test in vitro  Test species: Chinese hamster lung fibroblasts  Metabolic activation: Without metabolic activation  Result: negative</p> <p>Test Type: Mammalian cell gene mutation assay  Test species: Chinese hamster lung fibroblasts  Metabolic activation: with and without metabolic activation  Method: OECD Test Guideline 476  Result: negative  GLP: yes</p> <p>Test Type: DNA damage and/or repair  Metabolic activation: with and without metabolic activation  Result: negative</p>
	Genotoxicity in vivo	<p>Test species: mouse (male and female)  Cell type: Bone marrow  Application Route: Oral  Exposure time: 1 day  Dose: 0, 500, 1000, 2000 mg/kg bw  Method: OECD Test Guideline 474  Result: negative  GLP: yes</p>
25551-13-7	Genotoxicity in vitro	<p>Test Type: Ames test  Test species: Salmonella typhimurium  Metabolic activation: with and without metabolic activation  Method: OECD Test Guideline 471  Result: negative</p> <p>Test Type: Mammalian cell gene mutation assay  Test species: Chinese hamster ovary (CHO)  Metabolic activation: with and without metabolic activation  Method: OECD Test Guideline 476  Result: negative  Remarks: Information given is based on data obtained from similar substances.</p> <p>Test Type: Sister chromatid exchange assay in mammalian cells  Test species: Chinese hamster ovary (CHO)  Metabolic activation: with and without metabolic activation  Method: OECD Test Guideline 479  Result: negative  Remarks: Information given is based on data obtained from similar substances.</p>
	Genotoxicity in vivo	<p>Test Type: In vivo micronucleus test  Test species: mouse (male and female)  Cell type: Bone marrow  Application Route: Intraperitoneal  Dose: 0, 2000, 3280,4000 mg/kg  Method: DECO Test Guideline 474  Result: negative</p>
	Germ cell mutagenicity-Assessment	Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
98-82-8	Genotoxicity in vitro	<p>Test Type: Mammalian cell gene mutation assay  Test species: Chinese hamster ovary (CHO)  Metabolic activation: with and without metabolic activation  Method: DECO Test Guideline 476  Result: negative  GLP: yes</p>



		<p>Test Type: Ames test            Test species: Salmonella typhimurium            Metabolic activation: with and without metabolic activation            Method: DECO Test Guideline 471            Result: negative            GLP: yes</p>
		<p>Test Type: Chromosome aberration test in vitro            Test species: Chinese hamster ovary (CHO)            Metabolic activation: with and without metabolic activation            Method: DECO Test Guideline 473            Result: negative            GLP: yes</p>
	Genotoxicity in vivo	<p>Test Type: In vivo micronucleus test            Test species: mouse (male and female)            Application Route: inhalation (gas)            Method: DECO Test Guideline 474            Result: negative            GLP: yes</p>
		<p>Test Type: In vivo micronucleus test            Test species: rat (male)            Application Route: Intra peritoneal            Method: OECD Test Guideline 474            Result: Ambiguous            GLP: yes</p>
	Germ cell mutagenicity-Assessment	Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
1330-20-7	Genotoxicity in vitro	<p>Test Type: Chromosome aberration test in vitro            Test species: Chinese hamster ovary (CHO)            Metabolic activation: with and without metabolic activation            Method: Mutagenicity (in vitro mammalian cytogenetic test)            Result: negative</p>
		<p>Test Type: Sister chromatid exchange assay in mammalian cells            Test species: Chinese hamster ovary (CHO)            Metabolic activation: with and without metabolic activation            Result: negative</p>
	Genotoxicity in vivo	<p>Test Type: Dominant lethal assay            Test species: mouse            Application Route: Subcutaneous            Exposure time: 8 wk            Dose: 1.0 ml/kg            Method: OECD Test Guideline 478            Result: negative            GLP: no</p>
	Germ cell mutagenicity-Assessment	Animal testing did not show any mutagenic effects.
<b>REPRODUCTIVE TOXICITY</b>		
		Solvent components displayed some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments..
64742-95-6	Reproductive toxicity - Assessment	<p>Fertility classification not possible from current data.            Embryotoxicity classification not possible from current data.</p>
71-36-3	Reproductive toxicity - Assessment	No evidence of adverse effects on sexual function and fertility, and on development, based on animal experiments.

	Effects on fertility	<p>Test Type: Fertility/early embryonic development  Species: rat, male and female  Application Route: vapour  Dose: O, 3000, 6000 ppm  General Toxicity - Parent: NOAEC: 6000 ppm  General Toxicity Fl: NOAEC: 6000 ppm  Result: No reproductive effects.</p> <p>Test Type: Fertility/early embryonic development  Species: rat, female  Application Route: oral  Dose: O, 300, 1000, 5000 mg/kg bw  General Toxicity - Parent: NOAEL: 5000 mg/kg bw  Result: No reproductive effects.</p>
	Effects on foetal development	<p>Species: rat, female  Application Route: oral  Dose: O, 316, 1454, 5654 mg/kg bw  Duration of Single Treatment: 20 d  Frequency of Treatment: 7 days/week  General Toxicity Maternal: NOAEL: 1454 mg/kg bw  Teratogenicity: NOAEL: 5654 mg/kg bw  Developmental Toxicity: NOAEL: 1454 mg/kg bw  Symptoms: No malformations were observed, weight loss.  GLP: yes</p> <p>Species: rat, female  Application Route: vapour  Dose: O, 3500, 6000, 8000 ppm  Duration of Single Treatment: 20 d  Frequency of Treatment: 7 hr/day  General Toxicity Maternal: NOAEC: 3500 ppm  Teratogenicity: NOAEC: 8000 ppm  Developmental Toxicity: NOAEC: 3500 ppm  Symptoms: No malformations were observed, weight loss.</p>
25551-13-7	Reproductive toxicity - Assessment	Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.
25551-13-7	Effects on fertility	<p>Test Type: Two-generation study  Species: rat, male and female  Application Route: vapour  Dose: O, 100, 500, 1500 ppm  General Toxicity - Parent: NOAEC: 500 ppm  General Toxicity Fl: NOAEC: 500 ppm  Symptoms: Reduced maternal body weight gain.  Method: OECD Test Guideline 416  Remarks: Information given is based on data obtained from similar substances.</p>
	Effects on foetal development	<p>Species: rat  Application Route: vapour  Dose: O, 100, 300, 600, 900 ppm  Duration of Single Treatment: 15 d  Frequency of Treatment: 6 hr/day  General Toxicity Maternal: NOAEC: 300 ppm  Teratogenicity: 900 ppm  Developmental Toxicity: NOAEC: 300 ppm  Symptoms: weight loss  Method: OECD Test Guideline 414  Result: No teratogenic effects.</p>
	Reproductive toxicity - Assessment	<p>Fertility classification not possible from current data.  Embryotoxicity classification not possible from current data.</p>

98-82-8	Effects on fertility	Species: rat, male and female Application Route: inhalation (vapour) Dose: 0, 100, 500, and 1200 ppm Duration of Single Treatment: 6 h Frequency of Treatment: 5 days/week General Toxicity - Parent: NOAEL: > 1,200 ppm Method: OECD Test Guideline 413 GLP: yes
	Effects on foetal development	Species: rat Application Route: inhalation (vapour) Dose: 100, 500 and 1200 ppm Duration of Single Treatment: 10 d Frequency of Treatment: 6 hr/day General Toxicity Maternal: NOAEL: 100 ppm Developmental Toxicity: NOAEL: > 1,200 ppm Method: OECD Test Guideline 414 Result: No teratogenic effects. GLP: yes
	Reproductive toxicity - Assessment	Fertility classification not possible from current data. Animal testing did not show any effects on foetal development.
1330-20-7	Effects on fertility	Test Type: Two-generation study Species: rat, male and female Application Route: Inhalation Dose: 0, 25, 100 and 500 ppm Duration of Single Treatment: 6 h Frequency of Treatment: 7 days/week General Toxicity - Parent: NOAEC: > 500 ppm General Toxicity Fl: NOAEC: > 500 ppm Early Embryonic Development: NOAEC: > 500 ppm Result: No reproductive effects.
	Effects on foetal development	Species: rat Application Route: Inhalation Dose: 0, 100, 500, 1000 or 2000 ppm Duration of Single Treatment: 14 d Frequency of Treatment: 6 hr/day General Toxicity Maternal: NOAEC: 500 ppm Teratogenicity: NOAEC: > 2,000 Developmental Toxicity: NOAEC: 100 ppm Result: No teratogenic effects., Developmental toxicity occurred at maternal toxicity dose levels
	Reproductive toxicity - Assessment	Animal testing did not show any effects on fertility. Damage to fetus not classifiable

**TARGET ORGAN EFFECTS**

Central Nervous System, Respiratory System (Inhalation)

Single Exposure

CAS	EXPOSURE ROUTES	TARGET ORGANS	ASSESSMENT
64742-95-6	Inhalation	Central Nervous System	May cause drowsiness or dizziness. The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.
71-36-3	Inhalation	Respiratory System, Central Nervous System	May cause respiratory irritation., The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation. May cause drowsiness or dizziness. The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

25551-13-7	Inhalation	Respiratory System	May cause respiratory irritation., The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.
98-82-8	Inhalation	Respiratory System	May cause respiratory irritation., The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.
1330-20-7	Inhalation	Respiratory System	May cause respiratory irritation., The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

#### Repeated Exposure

CAS	EXPOSURE ROUTES	TARGET ORGANS	ASSESSMENT
1330-20-7		Liver, Kidney, Central Nervous System	May cause damage to organs through prolonged or repeated exposure. The substance is classified as specific target organ toxicant, repeated exposure, category 2.

#### REPEATED DOSE TOXICITY

- 64742-95-6 Species: rat, male and female  
NOAEL: 10.03 mg/I  
Application Route: Inhalation  
Test atmosphere: vapour  
Exposure time: 4 weeks  
Number of exposures: 6h/day, 5 d/week  
Dose: 0, 0.336, 1.464, 10.032 mg/I  
GLP: yes  
Target Organs: Kidney, Blood, Adrenal gland  
Remarks: Subchronic toxicity
- 71-36-3 Species: rat, male and female  
NOAEL: 125 mg/kg  
LOEAL: 500 mg/kg  
Application Route: Oral  
Exposure time: 6 or 13 weeks  
Number of exposures: 7 days/week  
Dose: 0, 30, 125, 500 mg/kg bw  
GLP: yes  
Symptoms: Central nervous system depression.
- 25551-13-7 Species: rat, male and female  
NOAEL: 600 mg/kg  
Application Route: Oral  
Exposure time: 90 d  
Number of exposures: daily, Sd/week  
Dose: 0, 50, 200, 600 mg/kg  
Method: OECD Test Guideline 408  
Test substance: Information given is based on data obtained from similar substances.  
GLP: yes  
Target Organs: Liver, Kidney
- Species: rat, male and female  
NOAEL: 250  
Application Route: inhalation (vapour)  
Exposure time: 90 d  
Number of exposures: 6/h, 5 d/wk  
Dose: 0, 25, 100, 250 ppm  
Method: OECD Test Guideline 413

- 98-82-8 Species: rat, male and female  
 NOAEL: 125  
 LOAEL: 250  
 Application Route: Inhalation  
 Test atmosphere: vapour  
 Exposure time: 14 wk  
 Number of exposures: 6 h/d, 5 d/wk  
 Dose: 62.5, 125, 250, 500, and 1000  
 Method: DECO Test Guideline 413  
 GLP: yes  
 Symptoms: Increased kidney and liver weights
- Species: rat, male  
 NOAEL: > 535.8 mg/kg  
 Application Route: Oral  
 Exposure time: 28 d  
 Number of exposures: daily  
 Dose: 22.8, 224.8, and 535.8 mg/kg/d
- 1330-20-7 Species: rat, male and female  
 NOAEL: 250 mg/kg  
 Application Route: Oral  
 Exposure time: 103 wk  
 Number of exposures: 5 d/wk  
 Dose: 0, 250 or 500 mg/kg  
 Revision Date: 10/08/2014  
 Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.
- 25155-15-1 Species: rat  
 NOAEL: > 535.8 mg/kg  
 Application Route: Oral  
 Exposure time: 28 d  
 Dose: 22.8, 224.8, and 535.8 mg/kg/d  
 Test substance: Cumene (isopropyl benzene)
- Species: rat  
 NOAEL: 125  
 LOAEL: 250  
 Application Route: inhalation (vapour)  
 Exposure time: 90 d  
 Dose: 62.5, 125, 250, 500, 1000 ppm  
 Method: DECO Test Guideline 413  
 Test substance: Cumene (isopropyl benzene)  
 GLP: yes

#### ASPIRATION TOXICITY

- 64742-95-6 The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.
- 71-36-3 The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard
- 25551-13-7 May be fatal if swallowed and enters airways.
- 25551-13-7 No aspiration toxicity classification
- 98-82-8 May be fatal if swallowed and enters airways.
- 1330-20-7 May be fatal if swallowed and enters airways

### **SECTION 12: ECOLOGICAL INFORMATION**

ECOTOXICITY Toxic to aquatic life with long lasting effects.

TOXICITY TO FISH	LC <sub>50</sub> <i>Oncorhynchus mykiss</i> , 96 h	64742-95-6	10 mg/l
	LC <sub>50</sub> <i>Pimephales promelas</i> , 96 h	71-36-3	1,376 mg/l
	LC <sub>50</sub> <i>Pimephales promelas</i> , 96 h	25551-13-7	7.72 mg/l

	LC <sub>50</sub> <i>Oncorhynchus mykiss</i> , 96 h	98-82-8	2.7 mg/l
	LC <sub>50</sub> <i>Oncorhynchus mykiss</i> , 96 h	1330-20-7	2.6 mg/l
		Polymers	Not established
TOXICITY TO DAPHNIA	EC <sub>50</sub> <i>Daphnia magna</i> , 48 h	64742-95-6	4.5 mg/l
	EC <sub>50</sub> <i>Daphnia magna</i> , 48 h	71-36-3	1,328 mg/l
	EC <sub>50</sub> <i>Daphnia magna</i> , 48 h	25551-13-7	3.6 mg/l
	EC <sub>50</sub> <i>Daphnia magna</i> , 48 h	98-82-8	1.4 mg/l
	EC <sub>50</sub> <i>Daphnia magna</i> , 24 h	1330-20-7	1 mg/l
		Polymers	Not established
TOXICITY TO ALGAE	EC <sub>50</sub> <i>Psuedokirchneriella subcapitata</i> , 72 h	64742-95-6	3.1 mg/l
	EC <sub>50</sub> <i>Psuedokirchneriella subcapitata</i> , 96 h	71-36-3	225 mg/l
	EC <sub>50</sub> <i>Desmodesmus subspicatus</i> , 72 h	98-82-8	2.01 mg/l
	EC <sub>50</sub> <i>Psuedokirchneriella subcapitata</i> , 73 h	1330-20-7	4.36 mg/l
		Polymers	Not established
PERSISTANCE AND DEGRADABILITY	Inoculum, activated sludge, 28 d	64742-95-6	77.05%, 49.2 mg/l, Readily biodegradable
	Inoculum, activated sludge, 28 d	25551-13-7	4 - 18%, 3.0 mg/l
	Inoculum, sewage, 20 d	98-82-8	70%, Readily biodegradable
	Inoculum, activated sludge, 20 d	1330-20-7	72%, Readily biodegradable
	Inoculum, <i>unknown</i> , 19 d	71-36-3	98%, Readily biodegradable
		Polymers	Not established
BIOACCUMULATIVE POTENTIAL	Partition coefficient	64742-95-6	log P <sub>ow</sub> = 3.42 (25 °C)
	Bioaccumulation	25551-13-7	BCF = 23 - 342
	Bioaccumulation	71-36-3	BCF = 3.16
	Partition coefficient	98-82-8	log P <sub>ow</sub> = 3.55 (23 °C)
	Partition coefficient	1330-20-7	log P <sub>ow</sub> = 2.77 - 3.15
		Polymers	Not established
MOBILITY IN SOIL	No data available		
OTHER ADVERSE EFFECTS	None known		

### **SECTION 13: DISPOSAL CONSIDERATIONS**

#### **WASTE DISPOSAL**

Dispose of in accordance with local, state and federal regulations. Destroy by incineration with off-gas scrubber. Do not discharge effluent containing this product into lakes, ponds or estuaries, oceans, or other waters unless in accordance with the requirements of the 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 you State Water Board or Regional Office of the Environmental Protection Agency.

US EPA WASTE NUMBER & DESCRIPTION No information available

### **SECTION 14: TRANSPORT INFORMATION**

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

#### **U.S. DOT**

##### **For ground transportation ONLY:**

Proper Shipping Name: Resin solution, *flammable (mixed xylenes)*.

Classification: 3

UN#: 1866

Packing Group: III

Hazard Label: Flammable liquid

*Note: Not a Marine Pollutant, by D.O.T. standards*

#### **ICAO / IATA**

Proper Shipping Name: Resin solution, *flammable (mixed xylenes)*.

Classification: 3

UN#: 1866

Packing Group: III

Hazard Label: Flammable liquid

All other transport:

Proper Shipping Name: Resin solution, *flammable (mixed xylenes)*.

Classification: 3

UN#: 1866

Packing Group: III

Hazard Label: Flammable liquid, Marine Pollutant

**IMDG**

Proper Shipping Name: Resin solution, *flammable (mixed xylenes)*.

Classification: 3

UN#: 1866

Packing Group: III

EmS#: F-E, S-E

Environmental Hazard: Marine Pollutant

Hazard Label: Flammable liquid, Marine Pollutant

**ADR/RID**

Proper Shipping Name: Resin solution, *flammable (mixed xylenes)*.

Classification: 3

UN#: 1866

Packing Group: III

Environmental Hazard: Marine Pollutant

Hazard Label: Flammable liquid, Marine Pollutant

**SECTION 15: REGULATORY INFORMATION**

The components in this product are either listed or exempt from listing due to polymer exemption criteria for the following chemical listing inventories as indicated by an "X":

AICS	Australian Inventory of Chemical Substances	X
DSL	Canadian Domestic Substances List	X
ECL	Korean Existing Chemicals List	X
ELINCS	European List of Notified Chemical Substances	
ENCS	Japanese Existing and New Chemical Substances	X
IECSC	Inventory of Existing Chemical Substances in China	X
ISRAEL	Proposed Israel Hazardous Substances List	
NDSL	Canadian Non-Domestic Substances List	
NZIoC	New Zealand Inventory of Chemicals	X
PICCS	Philippines Inventory of Chemicals and Chemical Substances	X
SWISS	Giftelist 1 and Inventory of Notified New Substances	
TCSI	Taiwan Chemical Substances List	X
TSCA	US Toxic Substances Control Act	X

**INTERNATIONAL REGULATIONS**

**EU REGULATION** (EC) No. 1907/2006 (REACH) Annex XIV - List of substances subject to authorization, *Substances of Very High Concern*: This product does not contain any SVHC listed substances.

**EINECS** All of the components of this product are included on the European Inventory of Existing Commercial Chemical Substances.

**C.D. 96/82/EC** Council Directive 96/82/EC, Annex I not mentioned by name. With regard to possibly appropriate decomposition products see Chapter 10.

**CANADA WHMIS** Class B-3: Flammable/Combustible  
Class D-2B: Other toxic effects (Toxic)  
All known major components of this material are listed on the Canadian Environmental Protection Act (CEPA) DSL or are exempt.

**FEDERAL REGULATIONS**

**SARA 313** This product does contain chemicals which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355), see below.

INGREDIENTS	CAS #	%
n-Butyl Alcohol	71-36-3	3.0 – 7.0
Mixed Xylenes	1330-20-7	0.0 – 1.4

Mixed Trimethylbenzenes	25551-13-7	6.0 – 12.6
Cumene	98-82-8	0.0 – 1.8

SARA Section 311/312 (40 CFR 370) Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Pressure Hazard	No
Reactivity Hazard	No

CERCLA This product, as supplied, contains substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional or state level pertaining to releases of this product.

**Mixed Xylenes** (1330-20-7): 100 lb RQ.  
**n-Butyl Alcohol** (71-36-3): 5000 lb RQ  
**Cumene** (98-82-8): 5000 lb RQ  
**Benzene** (71-43-2): 10 lb RQ

CLEAN WATER ACT The following Hazardous Substances are listed under the U.S. Clean Water Act, Section 311, Table 116.4A: Mixed Xylenes, Toluene, Benzene.  
The following Hazardous Substances are listed under the U.S. Clean Water Act, Section 311, Table 117.3: Mixed Xylenes, Toluene, Benzene.  
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CLEAN AIR ACT This product contains substances (Mixed Xylenes, Cumene) regulated as hazardous air pollutants (HAPS under Section 112 of the Clean Air Act Amendments of 1990).

OTHER FEDERAL None known

U.S. STATE REGULATIONS

RIGHT TO KNOW The Listing requirements of the Right to Know (RTK) legislation varies by state. All information for NJ, PA, MA and other states can be derived from the listing of hazardous and non-hazardous components in Sections 2 and 15 of this Safety Data Sheet.

CALIFORNIA PROP 65 **CALIFORNIA PROPOSITION 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):**  
**WARNING!** This product contains a chemical(s) known to the State of California to cause cancer.

<b>Component</b>	<b>CAS #</b>	<b>Amount</b>
Cumene	98-82-8	0.0 – 1.8 %
Benzene	71-43-2	< 0.02 %

**CALIFORNIA PROPOSITION 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):**  
**WARNING!** This product contains a chemical(s) known to the State of California to cause birth defects or other reproductive harm.

<b>Component</b>	<b>CAS #</b>	<b>Amount</b>
Toluene	108-88-3	< 0.02 %
Benzene	71-43-2	< 0.02 %



**SECTION 16: OTHER INFORMATION**

**DISCLAIMER** This product is intended for industrial use only and should be used in accordance with the manufacturer's recommendations. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods 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. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable. This SDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**DATE OF REVISION** October 12, 2017, *replaces April 27, 2016 version.*

**REASON FOR REVISION** Revised Restrictions the Hazards associated with Light Aromatic Solvent Naphtha in Sections 2, 3, 4 and 11 based on the latest supplier information. Revised the Storage conditions in Section 7.

**SDS PREPARED BY** Glen Pearson

**SDS APPROVED BY** Fred Allen