



SAFETY DATA SHEET

Surrounding You with Exceptional Protection

Issue Date 24-Feb-2016

Revision Date 14-Dec-2020

Version 2

1. IDENTIFICATION

Product identifier

Product Name TL-280 AR Resin

Other means of identification

Product Code 411B5

UN/ID no UN1263

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Industrial Coatings

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

BLOME INTERNATIONAL

1450 Hoff Industrial Drive

O'Fallon, MO 63366

Emergency telephone number

Company Phone Number 636-379-9119

Emergency Telephone CHEMTREC: 800-424-9300

CHEMTREC: 703-527-3887

CANUTEC: 613-966-6666

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1
Flammable liquids	Category 3

Label elements

Emergency Overview

Danger

Hazard statements

Harmful if swallowed

Harmful if inhaled

Causes skin irritation

Causes serious eye irritation

Suspected of causing cancer

Suspected of damaging fertility or the unborn child
 May cause respiratory irritation. May cause drowsiness or dizziness
 Causes damage to organs through prolonged or repeated exposure
 Flammable liquid and vapor



Appearance viscous

Physical state liquid

Odor Strong Aromatic

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Use only outdoors or in a well-ventilated area
 Do not breathe dust/fume/gas/mist/vapors/spray
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 Keep container tightly closed
 Use explosion-proof electrical/ ventilating / lighting/ mixing / equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge
 Keep cool

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 IF IN EYES: 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
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 If skin irritation occurs: Get medical advice/attention
 Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth
 In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Very toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

Unknown acute toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

Chemical Name	CAS No	Weight-%
Vinyl Ester Resin (non-hazardous) *	Proprietary	30 - 60
Styrene *	100-42-5	10 - 30
Glass, oxide, chemicals *	65997-17-3	10 - 30
Aluminum oxide *	1344-28-1	7 - 13
Titanium dioxide *	13463-67-7	1 - 5
Silica, amorphous, precipitated and gel *	112926-00-8	1 - 5

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). If symptoms persist, call a physician.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.
Inhalation	Remove to fresh air. Call a physician. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If symptoms persist, call a physician.
Ingestion	Call a physician or poison control center immediately. Do not induce vomiting without medical advice. Rinse mouth. Never give anything by mouth to an unconscious person.
Self-protection of the first aider	Remove all sources of ignition. Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms	May cause redness and tearing of the eyes. Coughing and/ or wheezing. May cause skin irritation. Drowsiness. Dizziness.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical, CO₂, sand, earth, water spray or regular foam.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Flammable. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO₂).

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge May be ignited by heat, sparks or flames.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Burning produces heavy smoke. Avoid runoff to waterways and sewers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep containers tightly closed in a cool, well-ventilated place.

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Styrene 100-42-5	STEL: 40 ppm TWA: 20 ppm	TWA: 100 ppm Ceiling: 200 ppm	IDLH: 700 ppm TWA: 50 ppm TWA: 215 mg/m ³ STEL: 100 ppm STEL: 425 mg/m ³
Glass, oxide, chemicals 65997-17-3	TWA: 1 fiber/cm ³ respirable fibers: length >5 µm, aspect ratio ≥3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination TWA: 5 mg/m ³ inhalable particulate matter	-	-

Aluminum oxide 1344-28-1	TWA: 1 mg/m ³ respirable particulate matter	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction	-
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust	IDLH: 5000 mg/m ³ TWA: 2.4 mg/m ³ CIB 63 fine TWA: 0.3 mg/m ³ CIB 63 ultrafine, including engineered nanoscale
Silica, amorphous, precipitated and gel 112926-00-8	-	TWA: 20 mppcf : (80)/(% SiO ₂) mg/m ³ TWA	-

NIOSH IDLH *Immediately Dangerous to Life or Health*

Appropriate engineering controls

Engineering Controls Showers
 Eyewash stations
 Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear protective gloves and protective clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid	Odor	Strong Aromatic
Appearance	viscous	Odor threshold	<1 ppm
Color	pigmented		
Property	Values	Remarks • Method	
pH	No information available		
Melting point / freezing point	No information available		
Boiling point / boiling range	115 °C / 239 °F		
Flash point	27 °C / 80 °F	Pensky-Martens Closed Cup (PMCC)	
Evaporation rate	1		
Flammability (solid, gas)	No information available		
Flammability Limit in Air			
Upper flammability limit:	1.1%		
Lower flammability limit:	6.6%		
Vapor pressure	0.57 kPa	@ 20 °C	
Vapor density	>1		
Relative density	1.3		
Water solubility	Insoluble in water		
Solubility in other solvents	No information available		
Partition coefficient	No information available		
Autoignition temperature	No information available		
Decomposition temperature	No information available		
Kinematic viscosity	> 1000 mm ² /s	@ 40 °C	
Dynamic viscosity	No information available		
Explosive properties	Not an explosive		
Oxidizing properties	Not applicable		

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY**Reactivity**

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization Hazardous polymerization may occur.**Conditions to avoid**

Heat, flames and sparks.

Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

Hazardous Decomposition ProductsThermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon monoxide. Carbon dioxide (CO₂).**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Product Information**

Inhalation	Irritating to respiratory system. May cause drowsiness or dizziness. Harmful by inhalation.
Eye contact	Irritating to eyes.
Skin contact	Irritating to skin.
Ingestion	Harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Styrene 100-42-5	= 1000 mg/kg (Rat)	-	= 11.7 mg/L (Rat) 4 h
Aluminum oxide 1344-28-1	> 5000 mg/kg (Rat)	-	-
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-

Information on toxicological effects

Symptoms Vapors may cause drowsiness and dizziness. Coughing and/ or wheezing. May cause skin irritation. May cause redness and tearing of the eyes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization Based on available data, the classification criteria are not met.
Germ cell mutagenicity Based on available data, the classification criteria are not met.
Carcinogenicity This product contains titanium dioxide which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is a liquid. The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Styrene 100-42-5	-	Group 2A	Reasonably Anticipated	X

Glass, oxide, chemicals 65997-17-3	-	Group 3	-	-
Titanium dioxide 13463-67-7	-	Group 2B	-	X
Silica, amorphous, precipitated and gel 112926-00-8	-	Group 3	-	-

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

Group 2A - Probably Carcinogenic to Humans

NTP (National Toxicology Program)

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity

STOT - single exposure

STOT - repeated exposure

Chronic toxicity

Target Organ Effects

Aspiration hazard

Product is or contains a chemical which is a known or suspected reproductive hazard.

Respiratory system. Central nervous system.

Based on available data, the classification criteria are not met.

Avoid repeated exposure. May cause adverse liver effects. Contains a known or suspected reproductive toxin.

Central nervous system, Eyes, liver, lungs, Reproductive System, Respiratory system, Skin.

Based on available data, the classification criteria are not met.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 1,139.00 mg/kg

ATEmix (inhalation-dust/mist) 1.95 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Styrene 100-42-5	1.4: 72 h Pseudokirchneriella subcapitata mg/L EC50 0.15 - 3.2: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 0.46 - 4.3: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 0.72: 96 h Pseudokirchneriella subcapitata mg/L EC50	3.24 - 4.99: 96 h Pimephales promelas mg/L LC50 flow-through 58.75 - 95.32: 96 h Poecilia reticulata mg/L LC50 static 19.03 - 33.53: 96 h Lepomis macrochirus mg/L LC50 static 6.75 - 14.5: 96 h Pimephales promelas mg/L LC50 static	3.3 - 7.4: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

Chemical Name	Partition coefficient
Styrene 100-42-5	2.95

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated packaging Do not reuse container.

US EPA Waste Number D001

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Styrene 100-42-5	Toxic Ignitable

14. TRANSPORT INFORMATION

DOT

UN/ID no UN1263
 Proper shipping name Paint
 Hazard Class 3
 Packing Group III
 Special Provisions B1, B52, IB3, T2, TP1, TP29
 Description UN1263, Paint, 3, III
 Emergency Response Guide Number 128

TDG

UN/ID no UN1263
 Proper shipping name Paint
 Hazard Class 3
 Packing Group III
 Description UN1263, Paint, 3, III

IATA

UN/ID no UN1263
 Proper shipping name Paint
 Hazard Class 3
 Packing Group III
 ERG Code 3L
 Special Provisions A3, A72, A192
 Description UN1263, Paint, 3, III

IMDG

UN/ID no UN1263
 Proper shipping name Paint
 Hazard Class 3
 Packing Group III
 EmS-No F-E, S-E
 Special Provisions 163, 223, 955
 Description UN1263, Paint, 3, III (27°C c.c.)

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
 DSL/NDSL Complies
 EINECS/ELINCS Complies
 IECSC Complies
 KECL Complies
 PICCS Complies
 AICS Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Styrene - 100-42-5	0.1
Aluminum oxide - 1344-28-1	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Styrene 100-42-5	1000 lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Styrene 100-42-5	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
Styrene - 100-42-5	Carcinogen
Titanium dioxide - 13463-67-7	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Styrene 100-42-5	X	X	X
Aluminum oxide 1344-28-1	X	X	X
Titanium dioxide 13463-67-7	X	X	X
Silica, amorphous, precipitated and gel 112926-00-8	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 2	Flammability 3	Instability 0	Physical and Chemical Properties -
HMIS	Health hazards 2*	Flammability 3	Physical hazards 0	Personal protection X
<i>Chronic Hazard Star Legend</i>		<i>* = Chronic Health Hazard</i>		

Issue Date 24-Feb-2016

Revision Date 14-Dec-2020

Revision Note

No information available

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet