



Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 01/31/2017

Revision: 01/31/2017

1 Identification

- **Product identifier**
- **Trade name: 4194 Prepreg**
- **Other product identifiers:** No other identifiers
- **Recommended use and restriction on use**
- **Recommended use:** Resin
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Sunrez Corporation
392 Coogan Way
El Cajon, CA, 92020
619-442-3353
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924 (North America)
+1 (813)248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Flam. Liq. 3 H226 Flammable liquid and vapor.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Muta. 1B H340 May cause genetic defects.
Carc. 1B H350 May cause cancer.
Repr. 2 H361 Suspected of damaging fertility or the unborn child.
STOT SE 3 H335 May cause respiratory irritation.
STOT RE 1 H372 Causes damage to the hearing organs through prolonged or repeated exposure.
Route of exposure: Inhalation.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms:**



GHS02 GHS07 GHS08

- **Signal word:** Danger
- **Hazard statements:**
H226 Flammable liquid and vapor.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.

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- H340 May cause genetic defects.
- H350 May cause cancer.
- H361 Suspected of damaging fertility or the unborn child.
- H335 May cause respiratory irritation.
- H372 Causes damage to the hearing organs through prolonged or repeated exposure. Route of exposure: Inhalation.

Precautionary statements:

- 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.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P260 Do not breathe dust/fume/gas/mist/vapors/spray.
- P264 Wash thoroughly after handling.
- P280 Wear protective gloves/protective clothing/eye protection.
- P240 Ground/bond container and receiving equipment.
- P233 Keep container tightly closed.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing must not be allowed out of the workplace.
- P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention. P308+P313 IF exposed or concerned: Get medical advice/attention.
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P370+P378 In case of fire: Use foam, powder, or carbon dioxide for extinction.
- P405 Store locked up.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Components:

| | | |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 100-42-5 | styrene | 25-60% |
| | <ul style="list-style-type: none"> Flam. Liq. 3, H226 Carc. 2, H351; Repr. 2, H361; STOT RE 1, H372; Asp. Tox. 1, H304 Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335 | |

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| | | |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 75980-60-8 | diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide ⚠ Repr. 2, H361 ⚠ Skin Sens. 1B, H317 | ≤10% |
| 64742-95-6 | light aromatic solvent naphtha (petroleum) ⚠ Muta. 1B, H340; Carc. 1B, H350; Asp. Tox. 1, H304 ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335 | <1% |

Additional information:

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.
For the wording of the listed Hazard Statements refer to section 16.

4 First-aid measures

Description of first aid measures**After inhalation:**

Supply fresh air; consult doctor in case of complaints.

In case of irregular breathing or respiratory arrest provide artificial respiration.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

Most important symptoms and effects, both acute and delayed:

Breathing difficulty

Allergic reactions

Irritant to skin and mucous membranes.

Causes eye irritation.

May cause respiratory irritation.

Gastric or intestinal disorders when ingested.

Nausea in case of ingestion.

Unconsciousness

Indication of any immediate medical attention and special treatment needed:

Medical supervision for at least 48 hours.

If necessary oxygen respiration treatment.

Contains diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide. May produce an allergic reaction.

Treat skin and mucous membrane with antihistamine and corticoid preparations.

5 Fire-fighting measures

Extinguishing media**Suitable extinguishing agents:**

Water fog / haze

Foam

Carbon dioxide

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- Fire-extinguishing powder
- **For safety reasons unsuitable extinguishing agents:** Water stream.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information:**
Eliminate all ignition sources if safe to do so.
Cool endangered containers with water fog.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
Keep away from ignition sources.
Protect from heat.
- **Environmental precautions** Avoid release to the environment.
- **Methods and material for containment and cleaning up**
Absorb liquid components with non-combustible liquid-binding material.
Pick up mechanically.
Send for recovery or disposal in suitable receptacles.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
Open and handle receptacle with care.
Use only in well ventilated areas.
Prevent formation of dust.
Avoid breathing dust.
Avoid contact with the eyes and skin.
Keep out of reach of children.
- **Information about protection against explosions and fires:**
Protect against electrostatic charges.
Flammable gas-air mixtures may be formed in empty containers/receptacles.
Flammable liquid and vapor.
Avoid dust cloud formation. Keep ignition sources away. No smoking.

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- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
Use only receptacles specifically permitted for this substance/product.
Avoid storage near extreme heat, ignition sources or open flame.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from oxidizers, strong acids, strong bases.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

100-42-5 styrene

| | |
|---------------|-----------------------------------------------------------------------------------------------------------|
| PEL (USA) | Long-term value: 100 ppm Ceiling limit value: 200; 600* ppm *5-min peak in any 3 hrs |
| REL (USA) | Short-term value: 425 mg/m ³ , 100 ppm Long-term value: 215 mg/m ³ , 50 ppm |
| TLV (USA) | Short-term value: 170 mg/m ³ , 40 ppm Long-term value: 85 mg/m ³ , 20 ppm BEI |
| EL (Canada) | Short-term value: 75 ppm Long-term value: 50 ppm IARC 2B |
| EV (Canada) | Short-term value: 100 ppm Long-term value: 35 ppm |
| LMPE (Mexico) | Short-term value: 40 ppm Long-term value: 20 ppm A4, IBE |

- **Ingredients with biological limit values:**

100-42-5 styrene

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| | |
|-----------|--------------------------------------------------------------------------------------------------------------------------------|
| BEI (USA) | 400 mg/g creatinine Medium: urine Time: end of shift Parameter: Mandelic acid plus phenylglyoxylic acid (nonspecific) |
| | 0.2 mg/L Medium: venous blood Time: end of shift Parameter: Styrene (semi-quantitative) |

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
Pregnant women should strictly avoid inhalation or skin contact.
- **Engineering controls:** No relevant information available.
- **Breathing equipment:**
Use suitable respiratory protective device in case of insufficient ventilation.
Use respiratory protection when grinding or cutting material.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Eye protection:**



Safety glasses

- **Body protection:** Protective work clothing
- **Limitation and supervision of exposure into the environment**
No relevant information available.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **Appearance:**
 - **Form:** Viscous liquid.
 - **Color:** Red-brown
- **Odor:** Sweet
- **Odor threshold:** Not determined.

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| | |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------|
| · pH-value: | Not determined. |
| · Melting point/Melting range: | Not determined. |
| · Boiling point/Boiling range: | 100 °C (212 °F) |
| · Flash point: | 34 °C (93 °F) |
| · Flammability (solid, gaseous): | Not applicable. |
| · Auto-ignition temperature: | Not determined. |
| · Decomposition temperature: | Not determined. |
| · Danger of explosion: | Product is not explosive. However, formation of explosive air/vapor mixtures are possible. |
| · Explosion limits Lower: | Not determined. |
| Upper: | Not determined. |
| · Vapor pressure: | Not determined. |
| · Density: Relative density: | 1.060 g/cm ³ (8.846 lbs/gal) |
| Vapor density: | Not determined. |
| Evaporation rate: | Not determined. |
| · Solubility in / Miscibility with Water: | Negligible |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity Dynamic: | Not determined. |
| Kinematic at 40 °C (104 °F): | > 20.5 mm ² /s |
| · Other information | No relevant information available. |

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- **Possibility of hazardous reactions**
Flammable.
Reacts with strong oxidizing agents.
- **Conditions to avoid**
Light, excess heat, dust generation, incompatible materials.
Keep ignition sources away - Do not smoke.
- **Incompatible materials** Oxidizers

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- **Hazardous decomposition products** Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

100-42-5 styrene

| | | |
|------------|---------|------------------|
| Oral | LD50 | 5000 mg/kg (rat) |
| Inhalative | LC50/4h | 24 mg/l (rat) |

- **Primary irritant effect:**

- **On the skin:** Irritant to skin and mucous membranes.

- **On the eye:** Irritating effect.

- **Sensitization:**

Contains diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide. May produce an allergic reaction.

- **IARC (International Agency for Research on Cancer):**

Present in trace quantities: 98-82-8, 100-41-4.

| | | |
|----------|--------------|----|
| 100-41-4 | ethylbenzene | 2B |
| 98-82-8 | cumene | 2B |
| 100-42-5 | styrene | 2B |

- **NTP (National Toxicology Program):**

Present in trace quantities.

| | | |
|----------|---------|---|
| 100-42-5 | styrene | R |
| 98-82-8 | cumene | R |

- **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

- **Probable route(s) of exposure:**

Eye contact.
Skin contact.

- **Acute effects (acute toxicity, irritation and corrosivity):**

Irritating to eyes, respiratory system and skin.
May be harmful if inhaled.

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

Muta. 1B, Carc. 1B, Repr. 2

- **Germ cell mutagenicity:** May cause genetic defects.

- **Carcinogenicity:** May cause cancer.

- **Reproductive toxicity:** Suspected of damaging fertility or the unborn child.

- **STOT-single exposure:** May cause respiratory irritation.

- **STOT-repeated exposure:**

Causes damage to the hearing organs through prolonged or repeated exposure. Route of exposure: Inhalation.

- **Aspiration hazard:** Based on available data, the classification criteria are not met.

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12 Ecological information· **Toxicity**· **Aquatic toxicity****75980-60-8 diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide**

LC50 | 6.53 mg/l (fish)

EC50 | 3.53 mg/l (daphnia)

- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information**
- **General notes:** Avoid release to the environment.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

13 Disposal considerations· **Waste treatment methods**· **Recommendation:**

Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

· **Uncleaned packagings**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information· **UN-Number**

· DOT, ADR, IMDG, IATA

UN1866

· **UN proper shipping name**

· DOT, IATA

· ADR, IMDG

Resin solution

RESIN SOLUTION

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· **Transport hazard class(es)**· **DOT**

· **Class** 3 Flammable liquids
 · **Label** 3

· **ADR**

· **Class** 3 (F1) Flammable liquids
 · **Label** 3

· **IMDG, IATA**

· **Class** 3 Flammable liquids
 · **Label** 3

· **Packing group**

· **DOT, ADR, IMDG, IATA** III

· **Environmental hazards**

· **Marine pollutant:** No

· **Special precautions for user**

Warning: Flammable liquids

· **Danger code (Kemler):**

30

· **EMS Number:**F-E, S-E· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**· **DOT**

Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

· **ADR**

Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

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· IMDG

Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

· IATA

Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each / 10 L net.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· Section 302 (extremely hazardous substances):

None of the ingredients are listed.

· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

100-42-5 styrene

· TSCA (Toxic Substances Control Act)

All ingredients are listed.

· Proposition 65 (California)**· Chemicals known to cause cancer:**

Present in trace quantities: 98-82-8, 100-41-4.

100-42-5 styrene

98-82-8 cumene

100-41-4 ethylbenzene

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

Present in trace quantities.

108-88-3 toluene

· Carcinogenic categories**· EPA (Environmental Protection Agency):**

None of the ingredients are listed.

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· IARC (International Agency for Research on Cancer):

Present in trace quantities: 98-82-8, 100-41-4.

| | | |
|----------|--------------|----|
| 100-41-4 | ethylbenzene | 2B |
| 98-82-8 | cumene | 2B |
| 100-42-5 | styrene | 2B |

· NIOSH-Ca (National Institute for Occupational Safety and Health):

None of the ingredients are listed.

· Canadian Domestic Substances List (DSL):

All ingredients are listed.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Date of preparation / last revision 01/31/2017 / -**· Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

LDLo: Lowest Lethal Dose Observed

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1B: Skin sensitisation – Category 1B

Muta. 1B: Germ cell mutagenicity – Category 1B

Carc. 1B: Carcinogenicity – Category 1B

Carc. 2: Carcinogenicity – Category 2

Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

Asp. Tox. 1: Aspiration hazard – Category 1

· Sources

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Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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