

**Safety Data Sheet**  
**Scar-Guard UVC**

**Section 1. Identification of the substance/mixture and of the company/undertaking**

- 1.1. Product identifier** Scar-Guard UVC  
**1.2 Relevant identified uses:** Intended to protect pipe or coatings.  
**1.3. Supplier details:** NRI  
3875 Fiscal Court, Ste #100  
Riviera Beach, FL 33404 U.S.A  
(561) 683-6992  
europe@neptunerresearch.com  
**1.4. Emergency telephone number:** **USA** 800-535-5053 (only available during office hours)  
**Europe** +48 33 488 12 85 (only available during office hours)

**Section 2. Hazards identification**

**2.1. Classification of the substance or mixture**

**2.1.1 Regulation (EC) No 1272/2008**

- Flammable liquids – category 3  
Skin corrosion/irritation – category 2  
Serious eye damage/ eye irritation – category 2  
Acute toxicity (inhalation) – category 4  
Specific target organ toxicity (single exposure) – category 3  
Reproductive toxicity – category 2  
Carcinogenicity – category 2  
Specific target organ toxicity (repeated exposure) – category 1  
Aspiration hazard – category 1

**2.2 Label Elements: Labeling according to Regulation (EC) No. 1272/2008 [CLP]**

**Hazard pictograms:**



**Signal word:** Danger

**Hazard statements:**

- H226: Flammable liquid and vapor.  
H332: Harmful if inhaled.  
H361d: Suspected of damaging the unborn child.  
H319: Causes serious eye irritation.



## Safety Data Sheet Scar-Guard UVC

H315: Causes skin irritation.  
H335: May cause respiratory irritation.  
H372: Causes damage to organs through prolonged or repeated exposure if inhaled.  
H304: May be fatal if swallowed and enters airways.

### **Precautionary statement:**

P101: If medical advice is needed, have product container or label at hand.  
P102: Keep out of reach of children.  
P210: Keep away from heat, sparks, open flames and hot surfaces. - No smoking.  
P233: Keep container tightly closed.  
P240: Ground/bond container and receiving equipment.  
P241: Use explosion-proof electrical/ventilating/lighting/material-handling equipment.  
P242: Use only non-sparking tools.  
P243: Take precautionary measures against static discharge.  
P201: Obtain special instructions before use.  
P202: Do not handle until all safety precautions have been read and understood.  
P264: Wash hands thoroughly after handling.  
P270: Do not eat, drink or smoke when using this product.  
P271: Use only outdoors or in a well-ventilated area.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P260: Do not breathe vapor or mist.  
P370+P378: In case of fire: Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.  
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P331: Do NOT induce vomiting.  
P308+P313: IF exposed or concerned: Get medical advice/attention.  
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312: Call a POISON CENTER or physician if you feel unwell.  
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P332+P313: If skin irritation occurs, get medical advice/attention.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313: If eye irritation persists, get medical advice/attention.  
P308+P311: IF exposed or concerned: Call a POISON CENTER or doctor/physician.  
P391: Collect spillage.  
P403 + P235: Store in a well-ventilated place. Keep cool.  
P233: Keep container tightly closed.  
P405: Store locked up.

**2.3. Other information:** None known

### **Section 3. Composition/ Information on Ingredients**

#### **3.1. Substances:**

- 2 of 11 -

**Safety Data Sheet**  
**Scar-Guard UVC**

Component	EC No	CAS #	Weight %	EU-GHS Substance Classification	REACH Number
Fiber Glass	266-046-0	65997-17-3	45 – 65	Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) STOT SE 3 (H335)	No data available
Styrene	202-851-5	100-42-5	15 - 22	Flam. Liq. 3 (H226) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 4 (H332) STOT SE 3 (H335) Repr. 2 (H361d) STOT RE 1 (H372)	No data available

**Note: The rest of the ingredient are not classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.**

**Section 4. First Aid Measures**

**4.1. Description of first-aid measures**

**Ingestion:** DO NOT INGEST. Wash mouth out with water. Remove dentures if any. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Seek immediate medical attention.

**Inhalation:** Move the victim to a safe area as soon as possible. Allow the victim to rest in a well-ventilated area. If breathing is difficult, give oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

**Skin Contact:** Flush contaminated skin with plenty of soap and water, remove contaminated shoes and clothing. Wash contaminated clothing thoroughly with water before removing it or wear gloves. Consult physician if symptoms develop.

**Eye Contact:** Flush with plenty of water for at least 30 minutes or until chemical has been removed. Check for and remove any contact lenses. If symptoms persist, seek medical attention.

**4.2 Most important symptoms/effects, acute and delayed:**

**Eye Contact:** Causes serious eye irritation.

**Inhalation:** Harmful if inhaled. May cause respiratory irritation.

**Skin contact:** Causes skin irritation.

**Ingestion:** Irritating to mouth, throat and stomach.

**Over-exposure signs/symptoms**

**Eye contact:** Adverse symptoms may include the following: pain or irritation, watering, redness.

**Inhalation:** Adverse symptoms may include the following: respiratory tract irritation, coughing.

**Skin contact:** Adverse symptoms may include the following: irritation, redness.

**Ingestion:** Adverse symptoms may include the following: Irritating to mouth, throat and stomach..

## Safety Data Sheet Scar-Guard UVC

**4.3 Indication of immediate medical attention and special treatment needed:** Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

### Section 5. Fire Fighting Measures

#### 5.1 Extinguishing media

**Suitable extinguishing media:** Use dry chemical, carbon dioxide, water spray (fog) or foam.

**Unsuitable extinguishing media:** Do not use water jet.

**5.2 Special hazards arising from the substance or mixture:** Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products:** Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur oxides halogenated compounds, metal oxide/oxides

**5.3 Advice for firefighters:** Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

### Section 6. Accidental Release Measures

#### 6.1 Personal precautions, protective equipment and emergency procedures:

**For non-emergency personnel:** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation.

**For emergency responders:** If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. See also the information in "For non-emergency personnel".

**6.2 Environmental precautions:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

**6.3. Methods and materials for containment and cleaning up:** Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

#### 6.4 Reference to other sections:

See Section 1 for emergency contact information

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## Safety Data Sheet Scar-Guard UVC

### Section 7. Handling and Storage

**7.1 Precautions for safe handling:** Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

**7.2 Conditions for safe storage including any incompatibilities:** Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Segregate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Refer to the product label and/or technical data sheet for further information.

**7.3 Specific end use(s):** No further relevant information available.

### Section 8. Exposure Controls / Personal Protection

#### 8.1 Control parameters

##### Exposure limits:

Component	Exposure Limits		
	ACGIH-TLV	OSHA-PELs	NIOSH- REL
Fiber Glass	10 mg/m <sup>3</sup> - 8 hr (Total dust) 3 mg/m <sup>3</sup> - 8 hr (Respirable particulates) 1 fibre / ml (respirable fibre)	15 mg/m <sup>3</sup> - 8 hr (Total dust) 5 mg/m <sup>3</sup> - 8 hr (Respirable particulates)	N/A
Styrene	TWA: 20 ppm 8 hours. TWA: 85 mg/m <sup>3</sup> 8 hours. STEL: 40 ppm 15 minutes. STEL: 170 mg/m <sup>3</sup> 15 minutes	TWA: 100 ppm 8 hours. CEIL: 200 ppm AMP: 600 ppm 5 minutes	TWA: 50 ppm 10 hours. TWA: 215 mg/m <sup>3</sup> 10 hours. STEL: 100 ppm 15 minutes. STEL: 425 mg/m <sup>3</sup> 15 minutes.

#### 8.2 Exposure controls

**8.2.1 Appropriate engineering controls:** Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

##### 8.2.2 Personal protective equipment



## Safety Data Sheet Scar-Guard UVC

**Hygiene measures:** Avoid contact with skin. Wash hands before eating, smoking or using the lavatory. Appropriate techniques should be used for removal of potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

**Respiratory Protection:** Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Eye / Face Protection:** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

**Skin Protection:** Wear chemical resistant impervious gloves and suitable protective clothing.

**8.3 Environmental exposure controls:** Do not allow material to contaminate ground water system.

### Section 9. Physical and Chemical Properties

a) Appearance (color):	Glass fiber cloth impregnated with light beige resin
b) Odour:	Aromatic
c) Odour threshold:	No data available
d) pH:	Not applicable
e) Melting point range:	Not applicable
f) Initial Boiling point/boiling range:	293°F / 145°C (resin)
g) Flash Point:	88°F / 31°C (resin)
h) Evaporation rate:	< 1 for resin (Butyl acetate = 1)
i) Flammability (solid, gas):	No data available
j) Upper/lower flammability or explosive limits:	Lower: 1.1% , Upper: 6.1% (Styrene)
k) Vapour pressure:	5.0 mm Hg@ 68°F / 20°C (Styrene)
l) Vapour density:	3.6 (Air = 1) (Styrene)
m) Relative density:	1.1 for resin (Water = 1)
n) Solubility in water:	Slight
o) Partition coefficient (n-octanol/water):	Not applicable
p) Auto-ignition temperature:	914°F / 490°C (Styrene)
q) Decomposition temperature:	No data available
r) Viscosity:	Not applicable
s) Explosive properties:	No data available
t) Oxidizing properties:	No data available

### Section 10. Stability and Reactivity

**10.1 Reactivity:** No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability:** Stable under recommended storage and handling conditions

**10.3 Possibility of hazardous reactions:** Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid:** Sunlight, open flames and storage above 25 °C. Avoid all possible sources of ignition (spark or flame).

Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.



## Safety Data Sheet Scar-Guard UVC

**10.5 Incompatible materials:** Reactive or incompatible with the following materials: oxidizing materials.

**10.6 Hazardous decomposition products:** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### Section 11. Toxicological Information

#### 11.1 Information on toxicological effects:

##### Acute Toxicity:

Ingredient	Result	Species	Dose	Exposure
styrene	LC50 Inhalation gas	Rat	2,770 ppm	4 hours
	LC50 Inhalation vapor	Rat	11,800 mg/m <sup>3</sup>	4 hours
	LC50 Inhalation vapor	Rat	5,634.2 ppm	4 hours
	LD50 Oral	Rat	2,650 mg/kg	-

##### Irritation / Corrosion:

Ingredient	Result	Species	Score	Exposure
styrene	Eyes – Mild irritant	Human	-	50 parts per million
	Eyes – Moderate irritant	Rabbit	-	24 hours per 100 milligrams
	Eyes – Severe irritant	Rabbit	-	100 milligrams
	Skin – Mild irritant	Rabbit	-	500 milligrams
	Skin – Moderate irritant	Rabbit	-	100 %

**Sensitization:** May cause sensitization by skin contact.

##### Carcinogenicity:

- 1) Negative Study A published study concluded that the mechanism for producing cancer in mice exposed to styrene is not applicable in human metabolism. (June 2013 Pharmacology & Toxicology 66 (2013))
- 2) Negative Study A recent update to an extensive study of reinforced plastic workers from 1948-1977 concluded that there was no coherent evidence that styrene exposure increased risk of cancer (March 2013 Epidemiology Vol. 24 Issue 2)
- 3) Positive Study Styrene induced pulmonary toxicity and carcinogenicity in mice was shown to be caused by a metabolite of styrene, probably styrene oxide. (Dec.2001 Toxicology Vol.169 Issue 2)

**Mutagenicity:** No mutagenic effect.

**Reproductive toxicity:** Not considered to be toxic to the reproductive system.

**Teratogenicity:** No known significant effects or critical hazards.

**Specific Target Organ Toxicity - single exposure (STOT-se):** No known significant effects or critical hazards.

**Specific Target Organ Toxicity - repeated exposure (STOT-re):** No known significant effects or critical hazards.

**Aspiration hazard:** No known significant effects or critical hazards.

#### Potential Acute Health Effects:

## Safety Data Sheet Scar-Guard UVC

**Ingestion:** Irritating to mouth, throat and stomach.

**Skin contact:** Causes skin irritation.

**Eye contact:** Causes serious eye irritation.

**Inhalation:** Harmful in inhaled.

**Acute toxicity and signs and symptoms of overexposure:**

**Eye:** Causes serious eye damage

**Skin:** Irritant to skin.

**Ingestion:** Harmful if swallowed.

**Skin sensitization:** May cause an allergic skin reaction.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact:** Adverse symptoms may include the following: pain or irritation, watering, redness.

**Skin contact:** Adverse symptoms may include the following: irritation, redness.

**Ingestion:** Adverse symptoms may include the following: Irritating to mouth, throat and stomach.

**Inhalation:** Adverse symptoms may include the following: respiratory tract irritation, coughing.

### Section 12. Ecological Information

**12.1 Toxicity:** Toxic to aquatic life with long lasting effects.

**Ecotoxicity data:**

Ingredient	Result	Species	Exposure
Styrene	Acute EC50 1400 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 720 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 4700 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 52 mg/l Marine water	Crustaceans - Artemia salina	48 hours
	Acute LC50 4020 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 63 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours

**12.2 Persistence and degradability:** No information available.

**12.3 Bioaccumulative potential:**

Ingredient	LogPow	BCF	Potential
Styrene	0.35	13.49	low

**12.4 Mobility in soil:** No information available.

**12.5 Results of PBT and vPvB Assessment:** No information available.

**12.6 Other adverse effects:** No known significant effects or critical hazards.

### Section 13. Disposal Considerations





## Safety Data Sheet Scar-Guard UVC

### 13.1 Waste treatment methods

**13.1.1 Product / Packaging disposal:** The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

**13.1.2 Waste treatment-relevant information:** Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**13.1.3 Sewage disposal-relevant information:** For disposal within the European Community, waste codes according to Directive 2008/98/EC should be assigned by the user based on the application for which the product was used.

**13.1.4 Other disposal recommendations:** Dispose of waste and residues in accordance with local authority requirements.

### Section 14. Transport Information

#### DOT/ TDG / IMO/ ICAO / IATA:

**Proper Shipping Name:** Resin solution.

**UN number:** UN1866

**Hazard Class:** 3

**Packing Group:** PG III

**Environmental hazard:**

**Marine pollutant:** No

**Special precautions for user:** Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Additional information:** US regulations require the reporting of spills when the amount exceeds the Reportable Quantity (RQ) for specific components of this material. See CERCLA in Section 15, Regulatory Information, for the Reportable Quantities.

#### IMDG:

**Proper Shipping Name:** Resin solution.

**UN number:** UN1866

**Hazard Class:** 3

**Packing Group:** PG III

**Emergency schedules (EmS):** F-E, S-E

**Remarks:** FP-31°C

**Environmental hazard:**

**Marine pollutant:** No

**Special precautions for user:** Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Additional information:** US regulations require the reporting of spills when the amount exceeds the Reportable Quantity (RQ) for specific components of this material. See CERCLA in Section 15, Regulatory Information, for the Reportable Quantities.

## Safety Data Sheet Scar-Guard UVC

### Section 15. Regulatory Information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**United States inventory (TSCA 8b):** All components are listed or exempted.

**Australia (AICS):** All components are listed or exempted.

**Canada (DSL):** All components are listed or exempted.

**China (IECSC):** All components are listed or exempted.

**Europe (EINECS):** At least one component is not listed in EINECS but all such components are listed in ELINCS.

**New Zealand (NZIoC):** All components are listed or exempted.

**Philippines (PICCS):** Not determined

**Japan inventory (ENCS):** Not determined.

**Japan inventory (ISHL):** Not determined.

**Republic of Korea (KECI):** All components are listed or exempted.

**Malaysia (EHS Register):** Not determined.

**Taiwan (CSNN):** All components are listed or exempted.

#### SARA 311/312. Composition/information on ingredients:

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

#### SARA 313:

**Form R-Reporting requirements:** Styrene (CAS 100-42-5)

**CERCLA RQ - styrene - 1000 lbs. (453.6 kg)**

**15.2 Chemical safety assessment:** No data available

### Section 16. Other Information

#### National Fire Protection Association (U.S.A.)



#### Key Legend Information:

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

OSHA – Occupational Safety and Health Administration

NIOSH – National Institute for Occupational Safety and Health

ATE = Acute Toxicity Estimate



## **Safety Data Sheet** **Scar-Guard UVC**

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

**The information contained herein is based on the data available to us and is believed to be accurate. The data is offered in good faith as typical values and not as product specification. The information in this data sheet was compiled from information supplied by the vendors of the components of this compound. NRI makes no warranty either expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. The recommended industrial hygiene and safe handling procedures are believed to be genuinely applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate. NRI assumes no responsibility for injury from the use of the product described herein. The information is intended only to assist in the safe handling of this material.**

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