* * *Section 1 – PRODUCT IDENTIFICATION* * *

Material Name:
Styrenated Phenol

Trade Name:
NEVASTAIN® 21 Resin

Recommended Uses of Product and Restrictions

Identified Uses: Adhesives, coatings, rubber
Uses Advised Against: None Known

Manufacturer Information

Neville Chemical Company
2800 Neville Road
Pittsburgh, PA 15225-1496
Phone:412-331-4200
Emergency Phone: 412-331-4200 or CHEMTREC at 800-424-9300
Fax:412-777-4234

* * *Section 2 - HAZARD(S) IDENTIFICATION* * *

Classification in accordance with Schedule 1 of Hazardous Products Regulations (HPR) (SOR/2015-17)

Skin Corrosion/Irritation - Category 2
Skin Sensitization - Category 1A
Hazardous to the Aquatic Environment - Chronic - Category 2
Hazardous to the Aquatic Environment - Acute - Category 2

GHS Label Elements

Symbol(s)



Signal Word
Warning

Hazard Statement(s)
Causes skin irritation.
May cause an allergic skin reaction.
Toxic to aquatic life with long lasting effects.

Precautionary Statement(s)

Prevention
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Avoid release to the environment

Response
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.

Storage
None needed according to classification criteria

Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations

Hazard(s) Not Otherwise Classified
Contact with molten (hot) material may cause thermal burns.

* * *Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS* * *

CAS	Component	Percentage
61788-44-1	Phenol, styrenated (EC Number 262-975-0)	>99.9%
108-95-2	Phenol (EC Number 203-632-7)	<0.1%

Contaminants:
<0.1% free phenol remains in the product

* * *Section 4 - FIRST-AID MEASURES* * *

Description of Necessary Measures

Inhalation

Supply fresh air. Consult a doctor in case of complaints.
If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

Skin Contact

Wash skin with soap and water thoroughly while removing contaminated clothing and shoes.

Eye Contact

Flush eyes with plenty of water for at least 15 minutes. Then consult a doctor.

Ingestion

Get medical attention

Most Important Symptoms/Effects

Acute

Mild skin irritation.

Delayed

No information on significant adverse effects.

Indication of Immediate Medical Attention and Special Treatment Needed, If Needed

Provide general supportive measures and treat symptomatically.

* * *Section 5 - FIRE-FIGHTING MEASURES* * *

Suitable Extinguishing Media

Dry chemical, carbon dioxide, foam, water spray

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Special Hazard Arising from the Chemical

Combustible liquid and vapor. May burn if exposed to surrounding fire When heated above its boiling point, may generate vapors that may ignite in air and a source of ignition. Vapors are heavier than air and can collect in low areas; vapors can travel to an ignition source and flash back

Combustion: oxides of carbon, carbon monoxide, hydrocarbons.

Fire Fighting Measures

Keep away from sources of ignition - No smoking. Avoid inhalation of material or combustion by-products. Move material from fire area if it can be done without risk. Use extinguishing agents appropriate for surrounding fire. Dike for later disposal. Stay upwind and keep out of low areas.

Special Protective Equipment and Precautions for Firefighters

Wear full protective firefighting gear including self-contained breathing apparatus (SCBA) for protection against possible exposure.

* * *Section 6 - ACCIDENTAL RELEASE MEASURES* * *

Personal Precautions, Protective Equipment and Emergency Procedures

Wear appropriate personal protective equipment recommended in Section 8 of the MSDS. Keep unnecessary people away, isolate hazard area and deny entry. Avoid contact with skin and eyes. Avoid release to the environment. Only personnel trained for the hazards of this material should perform clean up and disposal.

Methods and Materials for Containment and Cleaning Up

Use non-sparking tools and equipment. Keep unnecessary people away, isolate hazard area and deny entry. Absorb with sand or other non-combustible material. Keep out of water supplies, sewers and soil. Collect spilled material in appropriate container for disposal. In case of spillage, stop the flow of material and block any potential routes to water systems.

* * *Section 7 - HANDLING AND STORAGE* * *

Precautions for Safe Handling

Keep away from heat, sparks, open flame, hot surfaces & direct sunlight. Wear protective gloves and eye/face protection. Keep away from all ignition sources. Avoid contact with skin and eyes. Always wear recommended personal protective clothing and equipment. See Section 8. Take precautionary measures against static discharge. Dissipate static electricity during transfer by earthing (grounding and bonding) containers and equipment. Do not breathe vapor or mist.

Conditions for Safe Storage, including any Incompatibilities

Store in a cool, dry place. Store in a well-ventilated area. Avoid contact with molten material. Keep separated from incompatible substances. Keep container tightly closed. Empty containers may contain product residue. Do not reuse empty containers without commercial cleaning or reconditioning. Store and handle in accordance with all current regulations and standards.

Incompatible Materials

oxidizing materials, combustible materials

* * *Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION* * *

Component Exposure Limits

Components with limit values that require monitoring at the workplace:	
108-95-2	Phenol
PEL (USA)	Long-term value: 19 mg/m^3, 5 ppm, Skin
REL (USA)	Short-term value: C60* mg/m^3, C 15.6* ppm Long-term value: 19 mg/m^3, 5 ppm *15-0min; Skin
TLV (USA)	Long-term value: 19 mg/m^3, 5 oom. Skin: BEI
Ingredients with biological limit values:	
108-95-2	Phenol
BEI (USA)	250 mg/g creatinine. Medium: urine / Time: end of shift Parameter: Phenol with hydrolysis (background, nonspecific)

Appropriate Engineering Controls

Provide a local exhaust ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. It is recommended that all vapor control equipment, such as local exhaust ventilation and material transport systems, involved in handling this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure that vapor-handling systems (such as exhaust ducts, vessels, and processing equipment) are designed in a manner to prevent the escape of vapors into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

Individual Protection Measures, such as Personal Protective Equipment

General protective and hygienic measures:

Wash hands before breaks and at the end of work.

Eyes/Face Protection

Wear splash resistant safety goggles with a face shield.

Skin Protection

Wear appropriate chemical resistant clothing. Include boots and a protective suit if needed.

Glove Recommendations

Wear appropriate chemical resistant gloves. Recommended material: rubber, neoprene.
The resistance of the glove material should be checked prior to the application.

Respiratory Protection

A NIOSH approved respirator with organic vapor cartridges and N95 filters may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure.

* * *Section 9 - PHYSICAL AND CHEMICAL PROPERTIES* * *

Physical State:	Semi Viscous Liquid	**Vapor Density (air = 1):**	Not available
Appearance:	Fluid	**Evaporation Rate (water = 1):**	<1
Color:	Light Yellow	**pH:**	Not available
Odor:	Phenolic Like	**Boiling Point:**	232°C.
Odor Threshold:	Not available	**Boiling Point Range:**	Not Available
Softening Point:	Not Applicable	**Decomposition Temperature:**	Not available
Melting Point:	Not available	**Vapor Pressure:**	25 Pa at 68°F. 171.22 Pa @ 122°F.
Freezing Point:	Not available	**KOC:**	Not available
Specific Gravity (water = 1):	1.07 @ 25°C	**Log KOW:** **(n-octanol/water)**	DSP: 6.24 TSP: 7.77
Molecular Weight (Mn):	Not available	**Water Solubility:**	DSP: 665ug/l – TSP: 7.1ug/l
VOC:	Not available	**Coeff. Water/Oil Dist:**	Not available
Flash Point:	>365 °F	**Relative Density:**	Not available
OSHA Flammability Class:	Not classified	**Viscosity, Brookfield, cps.:**	5,000 ± 2,400 25°C.
Minimum Explosive Concentration:	Not available	**Taste:**	Not available
KSt-value (bar x m/s):	Not available	**LEL:**	Not available
Auto Ignition Temperature:	Not available	**UEL:**	Not available

* * *Section 10 - STABILITY AND REACTIVITY* * *

Reactivity

None known.

Chemical Stability

Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition.

Incompatible Materials

Oxidizing materials, combustible materials

Hazardous decomposition products

Oxides of carbon, carbon monoxide, hydrocarbons, phenolic type compounds
Combustion: oxides of carbon, carbon monoxide, hydrocarbons.

* * *Section 11 - TOXICOLOGICAL INFORMATION* * *

Acute and Chronic Toxicity

Acute toxicity:

Identification	Acute Toxicity	Genus
Phenol, styrenated CAS# 61788-44-1	LD50 oral - >5000 mg/kg	
	LD50 dermal - >5000 mg/kg	
	LC50 inhalation - >20 mg/L	
Phenol CAS# 108-95-2	LD50 oral – 100 mg/kg	Rat
	LD50 dermal – 630 mg/kg	Rabbit
	LC50 inhalation – 3 mg/L (ATEI)	

Information on Likely Routes of Exposure

Inhalation
No information on significant adverse effects.

Ingestion
No information on significant adverse effects.

Skin Contact
No information on significant adverse effects.

Eye Contact
No information on significant adverse effects.

Immediate Effects
No information on significant adverse effects.

Delayed Effects
No information on significant adverse effects.

Medical Conditions Aggravated by Exposure
No data available.

Irritation/Corrosivity Data
No information on significant adverse effects.

Respiratory Sensitization
No data available.

Dermal Sensitization
No data available.

Germ Cell Mutagenicity
No data available.

Carcinogenicity

Component Carcinogenicity

IARC (International Agency for Research on Cancer)		
108-95-2	phenol	3

Reproductive Toxicity
No data available.

Specific Target Organ Toxicity - Single Exposure
No data available.

Specific Target Organ Toxicity - Repeated Exposure
No data available.

Aspiration hazard
No data available.

* * *Section 12 - ECOLOGICAL INFORMATION* * *

Ecotoxicity

Toxic to aquatic life with lasting effects.

Product-specific aquatic toxicity

Acute toxicity	Species	Genus
LC50 – 5.6 mg/L (96h)	N/A	Fish
EC50 – 15.99 mg/L (48h)	N/A	Crustacean
EC50 – 9.01 mg/L (72h)	N/A	Algae

Acute Toxicity

Identification	Concentration	Species	Genus
Phenol, styrenated CAS# 61788-44-1	LC50 – 5.6 mg/L (96h)	N/A	Fish
	EC50 – 16 mg/L (48h)	Daphnia magna	Crustacean
	EC50 – 9 mg/L (72h)	N/A	Algae
Phenol CAS# 108-95-2	LC50 – 14 mg/L (96h)	Leuciscus Idus	Fish
	EC50 – 12 mg/L (24h)	Daphnia magna	Crustacean
	EC50 – 370 mg/L (96h)	Chlorella vulgaris	Algae

Chronic Toxicity

Identification	Concentration	Species	Genus
Phenol CAS# 108-95-2	NOEC – 0.077 mg/L	Cirrhina mrigala	Fish
	NOEC – 0.16 mg/L	Daphnia magna	Crustacean

Persistence and Degradability

Substance-specific information

Identification	Degradability	Biodegradability
Phenol, styrenated CAS# 61788-44-1	BOD5 – N/A	Concentration – N/A
	COD – N/A	Period – 28 days
	BOD5/COD – N/A	%Biodegradable – 7%
Phenol CAS# 108-95-2	BOD5 – 1.68 g O2/g	Concentration – 100 mg/L
	COD – 2.33 g O2/g	Period – 14 days
	BOD5/COD – 0.72	%Biodegradable – 85%

Bioaccumulation

Substance-specific information

Identification	Bioaccumulation potential
Phenol CAS# 108-95-2	BCF – 17
	Pow Log – 1.48
	Potential - Low

Mobility in Soil

Identification	Absorption/desorption	Volatility
Phenol CAS# 108-95-2	Koc – 50	Henry – 2.2E-2 Pa·m^3/mol
	Conclusion – Very High	Dry soil – Yes
	Surface tension – 1.847E-2 N/m (447.82°F)	Moist soil – Yes

General Notes:

Do not allow product to reach ground water, water course or sewage system.

Results of PBT and vPvB assessment

Not applicable

Other Adverse Effects:

No information available for this product

* * *Section 13 - DISPOSAL CONSIDERATIONS* * *

Disposal Methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

Disposal of Contaminated Packaging

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

* * *Section 14 - TRANSPORT INFORMATION* * *

US DOT Information

Shipping Name: Not regulated for transport
UN/NA #: Not Regulated

Not DOT Hazardous in non-bulk packaging (Drums / Pails)

Transport of dangerous goods by sea:

With regard to IMDG 40-20:

14.1	**UN number**	
14.2	**UN proper shipping name:**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Phenol, styrenated)
14.3	**Transport hazard class(es):**	9
	Labels:	9
14.4	**Packing group, if applicable:**	III
14.5	**Marine pollutant:**	Yes
14.6	**Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**	
	Special regulations:	335, 969, 274
	EmS Codes:	F-A, S-F
	Physico-Chemical properties:	see section 9
	Limited quantities:	5 L
	Segregation group:	Non-applicable
14.7	**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):**	Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2022:

14.1	**UN number:**	UN3082
14.2	**UN proper shipping name:**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Phenol, styrenated)
14.3	**Transport hazard class(es):**	9
	Labels:	9
14.4	**Packing group, if applicable**:	III
14.5	**Marine pollutant**:	Yes
14.6	**Special precautions which a user needs to be aware of, or needs to comply with, in Connection with transport or conveyance either within or outside their premises**	
	Physico-Chemical properties:	see section 9
14.7	**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):**	Non-applicable

* * *Section 15 - REGULATORY INFORMATION* * *

U.S. Federal Regulations

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

Sara

Section 355 (extremely hazardous substances) >0.1%	
108-95-2	Phenol
Section 313 (Specific toxic chemical listings) with De Minimis Limit 0.1%	
108-95-2	Phenol
TSCA (Toxic Substances Control Act):	
Substance is listed.	
Carcinogenic categories	
EPA (Environmental Protection Agency) >0.1%	
108-95-2	Phenol
NIOSH-Ca (National Institute for Occupational Safety and Health) >0.1%	
Substance is not listed	
OSHA-Ca (Occupational Safety & Health Administration) >0.1%	
Substance is not listed	

Canada Regulations

This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on SDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL:

Canadian WHMIS Information

WHMIS CLASSIFICATION: D2

Component Analysis - Inventory

Component	CAS	US	CA	EU	AU	PH	JP	KR	CN	NZ
Phenol, styrenated	61788-44-1	Yes	Yes	EIN	Yes	Yes	Yes	Yes	Yes	Yes

* * *Section 16 - OTHER INFORMATION* * *

NFPA Ratings: Health: 2 **Fire:** 1 **Reactivity:** 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

HMIS RATINGS:

Health: 2
Fire: 1
Reactivity: 0
Pers. Prot.: B Minimum

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Other Information

Reasonable care has been taken in the preparation of this information; however, the manufacturer makes no warranty whatsoever including the warranty of merchantability, expressed or implied, with respect to this information.