

1. Identification

Product identifier **NOVOCOAT™ SP2000WHB PART B HARDENER**

Other means of identification None.

Recommended use Not available.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name Armor Limited, Inc.
Address 2410 US-15 South, Sumter, SC 29150
After hours telephone number 1-877-982-7667
Normal work hours telephone number 1-877-982-7667
Website www.armor-inc.com
E-mail customerservice@armor-inc.com
Emergency 24-hour telephone number CHEMTREC North America: +1-800-424-9300, International: +1-703-527-3887
Information on operation hours 8:00am to 5:00pm

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Sensitization, skin	Category 1
Germ cell mutagenicity	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity, repeated exposure	Category 2

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Suspected of causing genetic defects. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

Response	IF ON SKIN: Wash with plenty of water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention. Specific treatment see Section 4 of this SDS. Get medical advice/attention if you feel unwell. Immediately call a POISON CENTER or doctor/physician.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
BISPHENOL A-(EPICHLOROHYDRIN) EPOXY RESIN		25068-38-6	> 0.5
PROPRIETARY INGREDIENTS		N/A	15 - 30
1,3-BENZENEDIMETHANAMINE		1477-55-0	1 - 20
[(DIMETHYLAMINO)METHYL]PHENOL		25338-55-0	1 - 10
PHENOL		108-95-2	1 - 10
TRIETHYLENETETRAMINE		112-24-3	1 - 10
PHENOL, 4-NONYL-, BRANCHED		84852-15-3	1 - 5
Other components below reportable levels			52.692

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Skin contact	Wash the skin immediately with soap and water. Immediately remove contaminated clothing. Wash contaminated clothing before reuse. Get medical attention immediately.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Ingestion	Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Never give anything by mouth to a victim who is unconscious or is having convulsions. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	May cause an allergic skin reaction. Causes serious eye damage. Burning pain and severe corrosive skin damage. Exposure may cause temporary irritation, redness, or discomfort. May cause severe irritation or burns to the eyes, skin, gastrointestinal tract, and respiratory system. Rash. Dermatitis.
Indication of immediate medical attention and special treatment needed	Treat symptomatically. Symptoms may be delayed. Keep victim under observation.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Foam. Water fog. Powder. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.

Specific methods

General fire hazards

Use standard firefighting procedures and consider the hazards of other involved materials.
No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions,
protective equipment and
emergency procedures

Methods and materials for
containment and cleaning up

Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. For personal protection, see section 8 of the SDS.
ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Use only non-sparking tools. Stop the flow of material, if this is without risk.
Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.
Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Conditions for safe storage,
including any
incompatibilities

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Eliminate all sources of ignition. Avoid contact with eyes. Avoid contact with skin. Do not get this material on clothing. Provide adequate ventilation. Do not breathe dust/fume/gas/mist/vapors/spray. Wear appropriate personal protective equipment. When using do not eat or drink. Avoid prolonged exposure. Observe good industrial hygiene practices.
Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)		
Components	Type	Value
PHENOL (CAS 108-95-2)	PEL	19 mg/m3 5 ppm
US. ACGIH Threshold Limit Values (TLV)		
Components	Type	Value
1,3-BENZENEDIMETHANAMINE (CAS 1477-55-0)	Ceiling	0.018 ppm
PHENOL (CAS 108-95-2)	TWA	5 ppm
NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended		
Components	Type	Value
PHENOL (CAS 108-95-2)	IDLH	1.8 % 250 ppm
US. NIOSH: Pocket Guide to Chemical Hazards Recommended Exposure Limits (REL)		
Components	Type	Value
1,3-BENZENEDIMETHANAMINE (CAS 1477-55-0)	Ceiling	0.1 mg/m3
PHENOL (CAS 108-95-2)	Ceiling	60 mg/m3 15.6 ppm
	TWA	19 mg/m3 5 ppm

US. OARS. Workplace Environmental Exposure Level (WEEL) Guide

Components	Type	Value
TRIETHYLENETETRAMINE (CAS 112-24-3)	TWA	6 mg/m3 1 ppm

Biological limit values**ACGIH Biological Exposure Indices (BEI)**

Components	Value	Determinant	Specimen	Sampling Time
PHENOL (CAS 108-95-2)	250 mg/g	Phenol with hydrolysis	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines**US - California OELs: Skin designation**

1,3-BENZENEDIMETHANAMINE (CAS 1477-55-0)	Can be absorbed through the skin.
PHENOL (CAS 108-95-2)	Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

PHENOL (CAS 108-95-2)	Skin designation applies.
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US - Tennessee OELs: Skin designation

1,3-BENZENEDIMETHANAMINE (CAS 1477-55-0)	Can be absorbed through the skin.
PHENOL (CAS 108-95-2)	Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

1,3-BENZENEDIMETHANAMINE (CAS 1477-55-0)	Danger of cutaneous absorption
PHENOL (CAS 108-95-2)	Danger of cutaneous absorption

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

1,3-BENZENEDIMETHANAMINE (CAS 1477-55-0)	Can be absorbed through the skin.
PHENOL (CAS 108-95-2)	Can be absorbed through the skin.

US WEEL Guides: Skin designation

TRIETHYLENETETRAMINE (CAS 112-24-3)	Can be absorbed through the skin.
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US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PHENOL (CAS 108-95-2)	Can be absorbed through the skin.
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Appropriate engineering controls Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Individual protection measures, such as personal protective equipment

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

Skin protection

Hand protection Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves.

Other Wear suitable protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Liquid.
Physical state	Liquid.
Form	Liquid.
Color	Amber.
Odor	Ammoniacal. Amine-like.
Odor threshold	Not available.
pH	Alkaline
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.

Flash point	>200.0 °F (>93.3 °C) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Bulk density	8.5 lb/gal
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Specific gravity	1.02 g/mL

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid temperatures exceeding the flash point. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Organic Acids. Peroxides. Product corrodes copper, aluminum, zinc, and galvanized surfaces. Mineral Acid Sodium hypochlorite. N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations. Nitrous acid and other nitrosating agents Organic acids (i.e. acetic acid, citric acid etc.).
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure	
Inhalation	Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns and eye damage. May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.
Ingestion	Expected to be a low ingestion hazard. However, ingestion is not likely to be a primary route of occupational exposure.
Symptoms related to the physical, chemical and toxicological characteristics	May cause an allergic skin reaction. Causes serious eye damage. May cause severe irritation or burns to the eyes, skin, gastrointestinal tract, and respiratory system. Exposure may cause temporary irritation, redness, or discomfort. Dermatitis. Rash.
Information on toxicological effects	
Acute toxicity	

PHENOL (CAS 108-95-2)		
Acute		
Dermal		
LD50	Rat	669 mg/kg
PHENOL, 4-NONYL-, BRANCHED (CAS 84852-15-3)		
Acute		
Dermal		
LD50	Rabbit	2140 mg/kg
Oral		
LD50	Rat	1600 mg/kg
Skin corrosion/irritation	Causes severe skin burns and eye damage.	
Serious eye damage/eye irritation	Causes serious eye damage.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	May cause allergic skin disorders in sensitive individuals.	
Germ cell mutagenicity	Suspected of causing genetic defects.	
Carcinogenicity	Not classifiable as to carcinogenicity to humans.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
PHENOL (CAS 108-95-2)	3 Not classifiable as to carcinogenicity to humans.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)		
Not listed.		
US. National Toxicology Program (NTP) Report on Carcinogens		
Not listed.		
Reproductive toxicity	Suspected of damaging fertility or the unborn child.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not an aspiration hazard.	
Chronic effects	Prolonged inhalation may be harmful.	

12. Ecological information

EcotoxicityThe product contains a substance which is harmful to aquatic organisms.

Product		Species	Test Results
NOVOCOAT™ SP2000WHB PART B HARDENER			
Aquatic			
Crustacea	EC50	Daphnia	876.6234 mg/l, 48 hours estimated
Fish	LC50	Fish	487.013 mg/l, 96 hours estimated
Acute			
Crustacea	EC50	Daphnia	1.9561 mg/l, 48 hours estimated
Fish	LC50	Fish	0.8803 mg/l, 96 hours estimated
Components		Species	Test Results
PHENOL (CAS 108-95-2)			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	4.24 - 10.7 mg/l, 48 hours
Fish	LC50	Asiatic knifefish (Notopterus notopterus)	6.85 mg/l, 96 hours

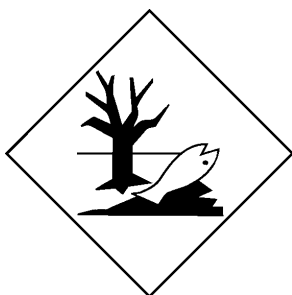
Components	Species		Test Results
PHENOL, 4-NONYL-, BRANCHED (CAS 84852-15-3)			
Aquatic			
Acute			
Crustacea	EC50	Clam (Mulinia lateralis)	0.0379 mg/l, 48 hours
Fish	LC50	Winter flounder (Pleuronectes americanus)	0.017 mg/l, 96 hours
Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.		
Bioaccumulative potential			
Partition coefficient n-octanol / water (log Kow)			
PHENOL		1.46	
PHENOL, 4-NONYL-, BRANCHED		5.71	
Mobility in soil	No data available.		
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.		
13. Disposal considerations			
Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.		
Local disposal regulations	Dispose in accordance with all applicable regulations.		
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.		
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).		
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.		
14. Transport information			
DOT			
Not regulated as dangerous goods.			
IATA			
UN number	UN2735		
UN proper shipping name	Amines, liquid, corrosive, n.o.s. (TRIETHYLENETETRAMINE, BISPHENOL A-(EPICHLOROHYDRIN) EPOXY RESIN)		
Transport hazard class(es)			
Class	8		
Subsidiary hazard	-		
Packing group	III		
Environmental hazards	YES		
ERG Code	8L		
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.		
Other information			
Passenger and cargo aircraft	Allowed with restrictions.		
Cargo aircraft only	Allowed with restrictions.		
IMDG			
UN number	UN2735		
UN proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (TRIETHYLENETETRAMINE, BISPHENOL A-(EPICHLOROHYDRIN) EPOXY RESIN), MARINE POLLUTANT		
Transport hazard class(es)			
Class	8		
Subsidiary hazard	-		
Packing group	III		
Environmental hazards			
Marine pollutant	Yes		
EmS	F-A, S-B		

Special precautions for user

Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not established.

IATA; IMDG**Marine pollutant****15. Regulatory information****US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

One or more components of the mixture are not on the TSCA 8(b) inventory or are designated "inactive".

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

PHENOL, 4-NONYL-, BRANCHED (CAS 84852-15-3) 1.0 % One-Time Export Notification only.

Toxic Substances Control Act (TSCA) Section 5(a)(2) Proposed Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

PHENOL, 4-NONYL-, BRANCHED (CAS 84852-15-3) 721.10765

CERCLA Hazardous Substance List (40 CFR 302.4)

PHENOL (CAS 108-95-2) Listed.

SARA 304 Emergency release notification

PHENOL (CAS 108-95-2) 1000 LBS

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
PHENOL	108-95-2	1000		500	10000

SARA 311/312 Hazardous chemical

Yes

Classified hazard categories

Skin corrosion or irritation
Serious eye damage or eye irritation
Respiratory or skin sensitization
Germ cell mutagenicity
Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
PHENOL	108-95-2	1 - 10
PHENOL, 4-NONYL-, BRANCHED	84852-15-3	1 - 5

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

PHENOL (CAS 108-95-2)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Contains component(s) regulated under the Safe Drinking Water Act.**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

PHENOL (CAS 108-95-2)

Low priority

US state regulations**California Proposition 65**WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision**Issue date** 09-20-2024**Version #** 01**NFPA ratings**
Health: 3
Flammability: 1
Instability: 0**Disclaimer**
Armor cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.