

1. Identification

Product identifier	NOVOCOAT™ EP3300 PASTE/CAULK SG 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, respiratory	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. May cause allergy or asthma symptoms or breathing difficulties if inhaled. 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. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation wear respiratory protection.

Response	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. Specific treatment see Section 4 of this SDS. Wash contaminated clothing before reuse.
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	%
1,3-BENZENEDIMETHANAMINE		1477-55-0	1 - 20
COPOLYMER OF BENZENAMINE AND FORMALDEHYDE, HYDROGENATED		135108-88-2	1 - 20
CYCLOHEXANAMINE, 4,4'-METHYLENEBIS-		1761-71-3	1 - 20
QUARTZ		14808-60-7	1 - 20
AMINE		Proprietary	1 - 10
POLYAMIDOMAINE		Proprietary	1 - 10
PROPRIETARY INGREDIENTS		N/A	1 - 10
[(DIMETHYLAMINO)METHYL]PHENOL		25338-55-0	1 - < 3
PHENOL		108-95-2	< 0.5
POLYETHYLENEAMINE		Proprietary	< 0.5
Other components below reportable levels			40 - < 50

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a physician if symptoms develop or persist.
Skin contact	Wash off immediately with soap and plenty of water. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Call a physician or poison control center 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. Do not induce vomiting without advice from poison control center. 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. Call a physician or poison control center immediately.
Most important symptoms/effects, acute and delayed	Rash. Birth defects. Long term exposure may affect affect fertility. Causes serious eye damage. Burning pain and severe corrosive skin damage. May cause drowsiness or dizziness. Headache. Nausea, vomiting. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. 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	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire fighting equipment/instructions	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. In the event of fire, cool tanks with water spray. In case of fire and/or explosion do not breathe fumes.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Prevent entry into waterways, sewer, basements or confined areas. Take precautionary measures against static discharge. Use only non-sparking tools. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Keep combustibles (wood, paper, oil, etc.) away from spilled material. 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. Put material in suitable, covered, labeled containers.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash thoroughly after handling. Avoid release to the environment.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in tightly closed container. Store in a cool, dry place. Store in a well-ventilated place. 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	Form
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PHENOL (CAS 108-95-2)	PEL	19 mg/m3 5 ppm	
QUARTZ (CAS 14808-60-7)	PEL	0.05 mg/m3	Respirable dust.

US. OSHA Table Z-3 Permissible Exposure Limits (PEL) for Mineral Dusts (29 CFR 1910.1000)

Components	Type	Value	Form
QUARTZ (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable.
		2.4 mppcf	Respirable.

US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value	Form
1,3-BENZENEDIMETHANAMINE (CAS 1477-55-0)	Ceiling	0.018 ppm	
PHENOL (CAS 108-95-2)	TWA	5 ppm	
QUARTZ (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

Components	Type	Value
PHENOL (CAS 108-95-2)	IDLH	1.8 % 250 ppm
QUARTZ (CAS 14808-60-7)	IDLH	50 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards Recommended Exposure Limits (REL)

Components	Type	Value	Form
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	
QUARTZ (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.

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. 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 appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Observe any medical surveillance requirements. 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. Do not get in eyes, on skin, on clothing.

9. Physical and chemical properties

Appearance	Viscous liquid
Physical state	Liquid.
Form	Paste.
Color	Various.
Odor	Ammoniacal Amine-like.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	≥200.0 °F (≥93.3 °C) Cleveland Open Cup
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	11.7 lb/gal 25°C
Specific gravity	1.4 @25°C

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	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Strong reducing agents. Alkalines. Acids. This product reacts with hydrofluoric acid. Halogens.
Hazardous decomposition products	Carbon dioxide. Carbon monoxide. Nitric Acid. Ammonia. Nitrogen oxide can react with water vapors to form corrosive nitric acid. Nitrosamine. Aldehydes.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact	Causes severe skin burns and eye damage. May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.
Ingestion	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

Symptoms related to the physical, chemical and toxicological characteristics	Exposure may cause temporary irritation, redness, or discomfort. Burning pain and severe corrosive skin damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. May cause respiratory irritation. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
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Information on toxicological effects

Acute toxicity

Components	Species	Test Results
CYCLOHEXANAMINE, 4,4'-METHYLENEBIS- (CAS 1761-71-3)		
Acute		
Oral		
LD50	Rat	380 mg/kg
PHENOL (CAS 108-95-2)		
Acute		
Dermal		
LD50	Rat	669 mg/kg

Skin corrosion/irritation	Causes severe skin burns and eye damage.
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Serious eye damage/eye irritation	Causes serious eye damage.
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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.
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Carcinogenicity	This product contains crystalline silica. Silica is a known carcinogen; however in this encapsulated form the normal routes of exposure are unavailable.
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IARC Monographs. Overall Evaluation of Carcinogenicity

PHENOL (CAS 108-95-2)	3 Not classifiable as to carcinogenicity to humans.
QUARTZ (CAS 14808-60-7)	1 Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

QUARTZ (CAS 14808-60-7)	Cancer
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US. National Toxicology Program (NTP) Report on Carcinogens

QUARTZ (CAS 14808-60-7)	Known To Be Human Carcinogen.
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Reproductive toxicity	Suspected of damaging fertility or the unborn child.
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Specific target organ toxicity - single exposure	Not classified.
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Specific target organ toxicity - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
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Aspiration hazard	Not an aspiration hazard.
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Chronic effects	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.
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12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
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Product	Species	Test Results
NOVOCOAT™ EP3300 PASTE/CAULK SG PART B HARDENER		
Aquatic		
Crustacea	EC50 Daphnia	4289.7461 mg/l, 48 hours

Product		Species	Test Results
Fish	LC50	Fish	262.6234 mg/l, 96 hours
<i>Acute</i>			
Crustacea	EC50	Daphnia	880.3037 mg/l, 48 hours estimated
Fish	LC50	Fish	86.0531 mg/l, 96 hours estimated

Components		Species	Test Results
PHENOL (CAS 108-95-2)			
Aquatic			
<i>Acute</i>			
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

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

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	Dispose of this material and its container to hazardous or special waste collection point. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	D002: Waste Corrosive material [pH ≤2 or =>12.5, or corrosive to steel] 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. (CYCLOHEXANAMINE, 4,4'-METHYLENEBIS-)
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. (CYCLOHEXANAMINE, 4,4'-METHYLENEBIS-), 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



General information IMDG Regulated 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)
Not regulated.

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)
QUARTZ (CAS 14808-60-7) Cancer
lung effects
immune system effects
kidney effects

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)

Not regulated.

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) Not regulated.**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

PHENOL (CAS 108-95-2)

Low priority

US state regulations**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

PHENOL (CAS 108-95-2)

QUARTZ (CAS 14808-60-7)

California Proposition 65

WARNING: WARNING: This product contains a chemical known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

QUARTZ (CAS 14808-60-7)

Listed: October 1, 1988

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)	No
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 07-11-2024

Version # 01

NFPA ratings
Health: 3
Flammability: 2
Instability: 0

Disclaimer

The information provided in this 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.