

SAFETY DATA SHEET



1. Identification

Product Name SB Flex 72% part B
Product Code SA102
Recommended use Decorative coating.
Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name Northern Surface Armor
Address 8140 W 350 N
Angola, IN 46703
Telephone (203)-393-0010
Contact person Steve Fine
Emergency phone number Call CHEMTREC day or night
USA/Canada - 1.800.424.9300
Mexico - 1.800.681.9531
Outside USA/Canada
1.703.527.3887

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 3
Health hazards	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Sensitization, respiratory	Category 1
	Sensitization, skin	Category 1
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2
OSHA defined hazards	Not classified.	

Label elements



Signal word

Danger

Hazard statement

Flammable liquid and vapor. Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways. Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.

Response

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 in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center/doctor. If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. Collect spillage.

Storage

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

Disposal

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

Hazard(s) not otherwise classified (HNOC)

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Homopolymer of Hexamethylene Diisocyanate	28182-81-2	65-70
Solvent naphtha (petroleum), light aromatic	64742-95-6	25-33
Hexamethylene-1, 6-diisocyanate	822-06-0	0.5 - 0.8
Hydroxyphenyl - benzotriazole derivatives	104810-48-2	0.4-0.6
Hydroxyphenyl-benzotriazole derivatives	104810-47-1	0.4-0.6
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	41556-26-7	0.2-0.3

Composition comments

Indication of immediate medical attention and special treatment needed General information

4. First-aid measures

Inhalation

5. Fire-fighting measures

Suitable extinguishing media

Skin contact

Eye contact

Ingestion

Most important symptoms/effects, acute and delayed

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Move into fresh air and keep at rest. If breathing stops, provide artificial respiration. Get medical attention if any discomfort continues. Flush thoroughly with water for at least 15 minutes. If skin rash or an allergic skin reaction develops, get medical attention. Get medical attention if irritation develops and persists.

Flush thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention immediately.

Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable take to hospital along with these instructions. Get medical attention if symptoms occur.

Irritating to eyes, respiratory system and skin. Irritation of nose and throat. Irritating to mucous membranes.

Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. Treat symptomatically. Symptoms may be delayed.

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Water spray, carbon dioxide, dry chemical or alcohol-resistant foam.

Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed. Solvent vapors may form explosive mixtures with air.
Special protective equipment and precautions for firefighters	Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Move containers from fire area if you can do it without risk.
General fire hazards	The product is flammable, and heating may generate vapors which may form explosive vapor/air mixtures.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Do not breathe mist or vapor. Avoid contact with skin and eyes. Local authorities should be advised if significant spillages cannot be contained. Stay upwind. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Ventilate closed spaces before entering. Use personal protection recommended in 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). Stop the flow of material, if this is without risk. Prevent entry into waterways, sewers, basements or confined areas. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Large Spills: Dike the spilled material, where this is possible. Following product recovery, flush area with water. Cover with plastic sheet to prevent spreading. Absorb spillage with non-combustible, absorbent material. Small Spills: Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.

7. Handling and storage

Precautions for safe handling	The product is flammable, and heating may generate vapors which may form explosive vapor/air mixtures. Do not handle or store near an open flame, heat or other sources of ignition. Avoid inhalation of vapors or mists. Avoid contact with skin, eyes and clothing. Do not smoke. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Use only in well-ventilated areas. Avoid prolonged exposure. Wash thoroughly after handling. Handle and open container with care.
Conditions for safe storage, including any incompatibilities	Follow rules for flammable liquids. Keep away from heat, sparks and open flame. Store in cool place. Keep in a well-ventilated place. Keep container tightly closed. Keep in an area equipped with sprinklers. Keep this material away from food, drink and animal feed. Use care in handling/storage. Keep away from sources of ignition - No smoking.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
Hexamethylene-1, 6-diisocyanate (CAS 822-06-0)	TWA	0.005 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Hexamethylene-1, 6-diisocyanate (CAS 822-06-0)		

Ceiling

0.14 mg/m³

0
.
0
2
p
p
m

TWA

0.035 mg/m³

0
.
0
0
5
p
p
m

Biological limit values	No biological exposure limits noted for the ingredient(s).
Exposure guidelines	Follow standard monitoring procedures.
Appropriate engineering controls	Explosion proof exhaust ventilation should be used. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment. Provide easy access to water supply or an emergency shower.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear goggles/face shield.
Skin protection	
Hand protection	Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.
Other	Wear appropriate chemical resistant clothing. Wear appropriate chemical resistant gloves. Structural firefighter's protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations. Wear chemical protective equipment that is specifically recommended by the Personal Protective Equipment manufacturer.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use a NIOSH/MSHA approved air purifying respirator as needed to control exposure. Consult with respirator manufacturer to determine respirator selection, use, and limitations. Use positive pressure, air-supplied respirator for uncontrolled releases or when air purifying respirator limitations may be exceeded. Follow respirator protection program requirements (OSHA 1910.134 and ANSI Z88.2) for all respirator use. In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. Launder contaminated clothing before reuse. Remove and isolate contaminated clothing and shoes.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Color	Not available.

Odor Not available.

Odor threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range 280 °F (137.78 °C)

Flash point 115.0 °F (46.1 °C)

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) 0.9 %

Flammability limit - upper (%) 6.4 %

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 11 mm Hg (100°F)

Vapor density 3.99 (air = 1)

Relative density 1.045

Solubility(ies)

Solubility (water)
Partition coefficient
(n-octanol/water)

Insoluble
Not available.

Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Risk of ignition. Stable at normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents. Strong acids. Strong bases.
Hazardous decomposition products	Carbon monoxide. Carbon dioxide. Nitrogen oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause respiratory irritation.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Ingestion may cause irritation and malaise.

Symptoms related to the physical, chemical and toxicological characteristics Irritating to eyes, respiratory system and skin. Irritation of nose and throat. Irritating to mucous membranes.

Information on toxicological effects

Acute toxicity Harmful if inhaled.

Components	Species	Test Results
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (CAS 41556-26-7)		
Acute		
<i>Oral</i>		
LD50	Rat	2369 - 4247 mg/kg
Homopolymer of Hexamethylene Diisocyanate (CAS 28182-81-2)		
Acute		
<i>Inhalation</i>		
LC50	Rat	4.62 mg/l, 4 h

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitization May cause allergic skin reaction.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Not classified.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity **single exposure**

Specific target organ toxicity - **Specific target organ toxicity - repeated exposure**

Not classified.

ay cause drowsiness or dizziness.

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Not classified.

Aspiration hazard

May be fatal if swallowed and enters airways.

Further information Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components		Species	Test Results
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (CAS 41556-26-7)			
Aquatic			
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>)	1 mg/l, 96 Hours
Hydroxyphenyl - benzotriazole derivatives (CAS 104810-48-2)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Algae	> 9 mg/l, 72 hours
Crustacea	EC50	<i>Daphnia magna</i>	4 mg/l, 48 hours
Fish	LC50	<i>Oncorhynchus masou ishikawae</i>	2.8 mg/l, 96 hours
Hydroxyphenyl-benzotriazole derivatives (CAS 104810-47-1)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Algae	> 9 mg/l, 72 hours
Crustacea	EC50	<i>Daphnia magna</i>	4 mg/l, 48 hours
Fish	LC50	<i>Oncorhynchus masou ishikawae</i>	2.8 mg/l, 96 hours
Solvent naphtha (petroleum), light aromatic (CAS 64742-95-6)			
Aquatic			
<i>Acute</i>			
Crustacea	EL50	<i>Daphnia</i>	4.5 mg/l, 48 hours
Fish	LL50	<i>Oncorhynchus mykiss</i>	10 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available for this product.

Mobility in soil No data available.

Mobility in general The product is insoluble in water.

Other adverse effects No data available.

13. Disposal considerations

Disposal instructions **Class** **Subsidiary risk Label(s)**
Packing group **Environmental hazards**
Marine pollutant

Hazardous waste code

Waste from residues / unused products

Contaminated packaging

14. Transport information

DOT

UN number

UN proper shipping name

Transport hazard class(es)

Dispose of this material and its container at hazardous or special waste collection point. Do not incinerate sealed containers. Do not allow this material to drain into sewers/water supplies.

Dispose in accordance with all applicable regulations.

Waste codes should be assigned by the user based on the application for which the product was used.

Dispose of in accordance with local regulations.

Coating solution

Dispose of in accordance with local regulations. Empty

3

containers should be taken to an approved waste handling

-

site for recycling or disposal.

3

III

Yes

UN1139

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Special provisions	B1, IB3, T2, TP1
Packaging exceptions	150
Packaging non bulk	203
Packaging bulk	242

IATA

UN number	UN1139
UN proper shipping name	Coating solution
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	III
Environmental hazards	Yes
ERG Code	3L

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN1139
UN proper shipping name	COATING SOLUTION
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	III
Environmental hazards	
Marine pollutant	Yes
EmS	F-E, <u>S</u> <u>E</u>

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 available.

General information IATA classification is not relevant as the material is not transported by air.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

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

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Hexamethylene-1, 6-diisocyanate (CAS 822-06-0) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
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Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Hexamethylene-1, 6-diisocyanate (CAS822-06-0)

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

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US. Massachusetts RTK - Substance List

Hexamethylene-1, 6-diisocyanate (CAS822-06-0)

US. New Jersey Worker and Community Right-to-Know Act

Hexamethylene-1, 6-diisocyanate (CAS822-06-0)

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Hexamethylene-1, 6-diisocyanate (CAS822-06-0)

US. California Proposition 65

Not Listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	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)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies 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).

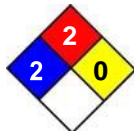
16. Other information, including date of preparation or last revision

Issue date 19-May-2015

Revision date -

Version # 01

NFPA ratings



References

HSDB® - Hazardous Substances Data Bank
Registry of Toxic Effects of Chemical Substances (RTECS)

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