



SAFETY DATA SHEET

Armor Auto LLC
P.O. Box 3974
Missoula, MT59806

Emergency Telephone Number: 800-535-5053
Information Telephone Number: 800-433-6903
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Version 1

1. IDENTIFICATION

Product Identifier

Product Name ArmorCoat Clear Spray-On Paint Protection Bra Part B

Other means of identification

SDS # AC-2B PART B

UN/ID No UN1992

Recommended use of the chemical and restrictions on use

Recommended Use Paint protection.

Details of the supplier of the safety data sheet

Supplier Address

Armor Auto LLC
P.O. Box 3974
Missoula, MT 59806

Emergency telephone number

Company Phone Number 1-800-433-6903
Emergency Telephone INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 3

Signal word

Danger

Hazard statements

Fatal if inhaled
Causes skin irritation
Causes severe eye irritation
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
May cause respiratory irritation. May cause drowsiness or dizziness
Flammable liquid and vapor



Physical state liquid

Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear respiratory protection
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
In case of inadequate ventilation wear respiratory protection
Contaminated work clothing should not be allowed out of the workplace
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Keep cool

Precautionary Statements - Response

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 skin irritation or rash occurs: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a POISON CENTER or doctor/physician
Call a POISON CENTER or doctor/physician if you feel unwell
In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

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

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

May be harmful in contact with skin
May be harmful if swallowed

Other Information

- Harmful to aquatic life
- Harmful to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%	Trade Secret
Poly(hexamethylene diisocyanate)	28182-81-2	60-80	*
n-Butyl acetate	123-86-4	10-40	*
Isophoronediiisocyanate	4098-71-9	5-20	*
Hexamethylene diisocyanate	822-06-0	0.1	*

4. FIRST AID MEASURES

First aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
Ingestion	Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin Contact	Wash off immediately with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Get medical attention if irritation develops or persists.

Most important symptoms and effects, both acute and delayed

Symptoms	Exposed individuals may experience eye tearing, redness and discomfort. May cause irritation, redness and pain. Prolonged breathing of vapors may cause nausea, headache, weakness and/or dizziness.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂). Dry chemical. Foam.

Unsuitable Extinguishing Media Water spray may be ineffective.

Specific hazards arising from the chemical

Closed containers may explode due to buildup of pressure when exposed to extreme heat. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure buildups and possible ignition or explosion when exposed to extreme heat.

Hazardous combustion products Carbon oxides.

Sensitivity to Static Discharge Flammable mixtures of this product are readily ignited even by static discharge.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Remove all sources of ignition. Ventilate affected area.

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Absorb spill with inert material (e.g. dry sand or earth).

Methods for cleaning up Keep in suitable, closed containers for disposal. Deactivate spill with a 10% ammonium hydroxide solution. After 10 minutes, collect in open containers and add more ammonia. Cover loosely. Use non-sparking hand tools and explosion-proof electrical equipment. Wash all affected areas with plenty of warm water and soap.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protection recommended in Section 8. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only in well-ventilated areas. Do not breathe dust/fume/gas/mist/vapors/spray. Ground container and transfer equipment to eliminate static electric sparks. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Use non-sparking hand tools and explosion-proof electrical equipment. Take precautionary measures against static discharges. Contaminated work clothing should not be allowed out of the workplace.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

Incompatible materials Water. Acids. Alkali.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
n-Butyl acetate 123-86-4	STEL: 200 ppm TWA: 150 ppm	TWA: 150 ppm TWA: 710 mg/m ³ (vacated) TWA: 150 ppm (vacated) TWA: 710 mg/m ³ (vacated) STEL: 200 ppm (vacated) STEL: 950 mg/m ³	IDLH: 1700 ppm TWA: 150 ppm TWA: 710 mg/m ³ STEL: 200 ppm STEL: 950 mg/m ³
Isophoronediiisocyanate 4098-71-9	TWA: 0.005 ppm	(vacated) TWA: 0.005 ppm (vacated) STEL: 0.02 ppm (vacated) S*	TWA: 0.005 ppm TWA: 0.045 mg/m ³ STEL: 0.02 ppm STEL: 0.180 mg/m ³

Hexamethylene diisocyanate 822-06-0	TWA: 0.005 ppm	-	Ceiling: 0.020 ppm 10 min Ceiling: 0.140 mg/m ³ 10 min TWA: 0.005 ppm TWA: 0.035 mg/m ³
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Other Information No person should use these products or be in the area where these products are being used if they have chronic lung or breathing problems, or if they ever have a reaction to isocyanates.

Appropriate engineering controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits.

Individual protection measures, such as personal protective equipment

- Eye/face protection** Wear approved safety goggles.
- Skin and body protection** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
- Respiratory protection** Where overspray is present, a positive pressure air supplied respirator (TC19C NIOSH/MSHA approved) should be worn. If unavailable, a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA may be effective.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid	Odor	Not determined
Appearance	Not determined	Odor threshold	Not determined
Color	Not determined		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not determined	
Melting point/freezing point	Not available	
Boiling point/boiling range	55-195 °C / 132-384 °F	
Flash point	28.8 °C / 84 °F	
Evaporation rate	Slower than ether	
Flammability (solid, gas)	Not determined	
Flammability Limits in Air		
Upper flammability limits	Not determined	
Lower flammability limit	Not determined	
Vapor pressure	Not determined	
Vapor density	Heavier than air	
Specific Gravity	1.01-1.05	
Water solubility	Not determined	
Solubility in other solvents	Not determined	
Partition coefficient	Not determined	
Autoignition temperature	Not determined	
Decomposition temperature	Not determined	
Kinematic viscosity	Not determined	
Dynamic viscosity	Not determined	
Explosive properties	Not determined	
Oxidizing properties	Not determined	

Other Information

VOC Content (%) 2.41 lb/gal

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

Contamination with water, acids, or alkalis can cause evolution of hydrogen, which may result in dangerously increased pressures in closed containers.

Conditions to avoid

Keep out of reach of children.

Incompatible materials

Water. Acids. Alkali.

Hazardous Decomposition Products

Carbon dioxide (CO₂). Carbon monoxide. Metal oxide fume.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Fatal if inhaled.
Eye contact	Causes severe eye irritation.
Skin Contact	Causes skin irritation. May be harmful in contact with skin. May cause allergic skin reaction.
Ingestion	May be harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Poly(hexamethylene diisocyanate) 28182-81-2	-	-	= 18500 mg/m ³ (Rat) 1 h
n-Butyl acetate 123-86-4	10768 mg/kg (Rat)	>17600 mg/kg (Rabbit)	390 ppm (Rat) 4 h
Isophoronediiisocyanate 4098-71-9	1270 mg/kg (Rat)	4780 mg/kg (Rabbit) >7000 mg/kg (Rat)	0.123 mg/L (Rat) 4 h 0.26 mg/L (Rat) 1 h
Hexamethylene diisocyanate 822-06-0	710 mg/kg (Rat)	570 mg/kg (Rabbit)	0.15 mg/L (Rat) 4 h 0.29 mg/L (Rat) 1 h

Information on physical, chemical and toxicological effects

Symptoms Exposed individuals may experience eye tearing, redness, and discomfort. May cause irritation, redness and pain. Prolonged breathing of vapors may cause nausea, headache, weakness and/or dizziness.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
Reproductive toxicity	Suspected of damaging fertility or the unborn child.
STOT - single exposure	May cause respiratory irritation. May cause drowsiness or dizziness.

Numerical measures of toxicity- Product

Not determined

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	3925 mg/kg
ATEmix (dermal)	3742 mg/kg
ATEmix (inhalation-gas)	242 mg/l
ATEmix (inhalation-vapor)	20030.9 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
n-Butyl acetate 123-86-4	674.7: 72 h Desmodesmus subspicatus mg/L EC50	100: 96 h Lepomis macrochirus mg/L LC50 static 17-19: 96 h Pimephales promelas mg/L LC50 flow-through 62: 96 h Leuciscus idus mg/L LC50 static	EC50 = 70.0 mg/L 5 min EC50 = 82.2 mg/L 15 min EC50 = 959 mg/L 18 h EC50 = 98.9 mg/L 30 min	72.8: 24 h Daphnia magna mg/L EC50
Isophoronediiisocyanate 4098-71-9	118.7: 72 h Desmodesmus subspicatus mg/L EC50	1.8: 48 h Leuciscus idus mg/L LC50 static		83.7: 24 h Daphnia magna mg/L EC50
Hexamethylene diisocyanate 822-06-0		26.1: 96 h Brachydanio rerio mg/L LC50 static	EC50 = 15.7 mg/L 30 min EC50 = 25.5 mg/L 15 min EC50 = 53.2 mg/L 5 min	

Persistence and degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined.

Chemical Name	Partition coefficient
n-Butyl acetate 123-86-4	1.81

Other adverse effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not incinerate closed containers. Dispose of in accordance with federal, state and local regulations.

Chemical Name	California Hazardous Waste Status
n-Butyl acetate 123-86-4	Toxic

14. TRANSPORT INFORMATION

DOT

UN/ID No UN1992
Proper shipping name Flammable liquids, toxic, n.o.s. (n-butyl acetate, hexamethylene diisocyanate)
Hazard Class 3
Subsidiary class 6.1
Packing Group III

IATA

UN/ID No UN1992
Proper shipping name Flammable liquid, toxic, n.o.s. (n-butyl acetate, hexamethylene diisocyanate)
Hazard Class 3
Subsidiary hazard class 6.1
Packing Group III

IMDG

UN/ID No UN1992
Proper shipping name Flammable liquid, toxic, n.o.s. (n-butyl acetate, hexamethylene diisocyanate)
Hazard Class 3
Subsidiary hazard class 6.1
Packing Group III

15. REGULATORY INFORMATION

International Inventories

TSCA Listed

Legend:

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*
- ENCS - Japan Existing and New Chemical Substances*
- IECSC - China Inventory of Existing Chemical Substances*
- KECL - Korean Existing and Evaluated Chemical Substances*
- PICCS - Philippines Inventory of Chemicals and Chemical Substances*

US Federal Regulations

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
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Isophoronediiisocyanate - 4098-71-9	4098-71-9	5-20	1.0
Hexamethylene diisocyanate - 822-06-0	822-06-0	0.1	1.0

SARA 311/312 Hazard Categories

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
n-Butyl acetate 123-86-4	5000 lb			X
Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)	
n-Butyl acetate 123-86-4	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ	
Isophoronediiisocyanate 4098-71-9		500 lb		
Hexamethylene diisocyanate 822-06-0	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ	

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
n-Butyl acetate 123-86-4	X	X	X
Isophoronediiisocyanate 4098-71-9	X	X	X
Hexamethylene diisocyanate 822-06-0	X	X	

U.S. EPA Label Information

16. OTHER INFORMATION

NFPA	Health hazards	Flammability	Instability	Special Hazards
	Not determined	Not determined	Not determined	Not determined
HMIS	Health hazards	Flammability	Physical hazards	Personal protection
	2	3	0	Not determined

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 Revision Note
 new format

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.

End of Safety Data Sheet