

SECTION 1: Identification

1.1. Product identifier

Product form : Substance
 Substance name : ARMOURSHIELD 836 / 837 / 839: COMMON PART B
 Product code : 83ARMB
 Product group : Trade product

1.2. Recommended use and restrictions on use

Recommended use : Coatings and paints

1.3. Supplier

Cloverdale Paint Inc.
 400- 2630 Croydon Drive
 V3Z 6T3 Surrey - CANADA
 T 1-(604)-596-6261
btinsley@cloverdalepaint.com - www.cloverdalepaint.com

1.4. Emergency telephone number

Emergency number : CANUTEC 24 hr. Emergency Number (613) 996-6666

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS-CA)

Acute toxicity (inhalation:vapour) Category 4 H332
 Respiratory sensitization, Category 1 H334
 Skin sensitization, category 1A H317
 Specific target organ toxicity (single exposure) Category 3 H335
 Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-CA labeling

Hazard pictograms (GHS-CA) :



GHS07

GHS08

Signal word (GHS-CA) : Danger

Hazard statements (GHS-CA) : H317 - May cause an allergic skin reaction
 H332 - Harmful if inhaled
 H334 - May cause an allergy or asthma symptoms or breathing difficulties if inhaled
 H335 - May cause respiratory irritation

Precautionary statements (GHS-CA) : P261 - Avoid breathing mist, vapors, spray.
 P271 - Use only outdoors or in a well-ventilated area.
 P272 - Contaminated work clothing should not be allowed out of the workplace.
 P280 - Wear eye protection, face protection, protective gloves, protective clothing.
 P284 - [In case of inadequate ventilation] wear An approved organic respirator.
 P302+P352 - IF ON SKIN: Wash with plenty of soap & water.
 P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P312 - Call a POISON CENTER if you feel unwell.
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
 P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER.
 P362+P364 - Take off contaminated clothing and wash it before reuse.
 P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 P405 - Store locked up.
 P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-CA)

No data available

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SECTION 3: Composition/Information on ingredients

3.1. Substances

Name : ARMOURSHIELD 836 / 837 / 839: COMMON PART B

Name	Chemical name/Synonyms	Product identifier	%	Classification (GHS-CA)
Hexamethylene diisocyanate	Hexamethylene 1,6-diisocyanate / Hexamethylene-1,6-diisocyanate / Hexane, 1,6-diisocyanato- / 1,6-Hexamethylene diisocyanate / Hexamethylene diisocyanate, 1,6- / Hexamethylene diisocyanate monomer / HDI / HMDI / Hexane-1,6-diisocyanate / 1,6-Diisocyanatohexane	(CAS-No.) 822-06-0	0.5	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 2 (Inhalation), H330 HHNOC 1, HHNOC Skin Corr. 1, H314 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1A, H317

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.
- First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse eyes with water as a precaution.
- First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.
- First-aid measures general : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after inhalation : May cause respiratory irritation. May cause drowsiness or dizziness. May cause an allergy or asthma symptoms or breathing difficulties if inhaled.
- Symptoms/effects after skin contact : May cause moderate irritation. Repeated or prolonged contact may cause sensitization of the skin (dermatitis, reddening,...). May cause an allergic skin reaction.
- Symptoms/effects after eye contact : May cause severe irritation.
- Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

4.3. Immediate medical attention and special treatment, if necessary

- Other medical advice or treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

- Suitable extinguishing media : Dry chemical. Carbon dioxide. water spray (fog) or foam.

5.2. Unsuitable extinguishing media

- Unsuitable extinguishing media : Do not use water jet.

5.3. Specific hazards arising from the hazardous product

- Fire hazard : Not flammable. Flammable liquid and vapour.
- Explosion hazard : No direct explosion hazard. May form flammable/explosive vapor-air mixture.

5.4. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Eliminate all ignition sources if safe to do so. Evacuate area. Exercise caution when fighting any chemical fire. Use extinguishing agent suitable for surrounding fire. Use water spray or fog for cooling exposed containers. Wear personal protective equipment.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid contact with skin and eyes. Avoid inhalation of vapor and spray mist. Eliminate every possible source of ignition. Evacuate area. Ground and bond container and receiving equipment. Soak up with absorbent material (for example sand, sawdust, neutral absorbent granule, silica gel). Ventilate area. Wear personal protective equipment.

6.2. Methods and materials for containment and cleaning up

- For containment : Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect spillage. Dispose of contaminated materials in accordance with current regulations.

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Methods for cleaning up	: Take up liquid spill into absorbent material.
Other information	: Dispose of materials or solid residues at an authorized site.

6.3. Reference to other sections

For further information refer to section 8 "Exposure controls/personal protection"

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Use only outdoors or in a well-ventilated area. Avoid breathing mist, vapors, spray. Avoid contact with skin and eyes. Wear personal protective equipment.
Hygiene measures	: Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
Additional hazards when processed	: Avoid breathing dust, mist or spray. Avoid contact with skin and eyes. Ensure good ventilation of the work station. Ground and bond container and receiving equipment. Handle carefully.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Ground/bond container and receiving equipment. Keep container closed when not in use. Provide local exhaust or general room ventilation. Use only non-sparking tools.
Storage conditions	: Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Incompatible products	: Oxidizing agent. acids. Bases.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hexamethylene diisocyanate (822-06-0)		
USA - ACGIH	ACGIH TWA (ppm)	0.005 ppm
Canada (Quebec)	VEMP (mg/m³)	0.034 mg/m³
Canada (Quebec)	VEMP (ppm)	0.005 ppm
Alberta	OEL TWA (mg/m³)	0.03 mg/m³
Alberta	OEL TWA (ppm)	0.005 ppm
British Columbia	OEL Ceiling (ppm)	0.01 ppm
British Columbia	OEL TWA (ppm)	0.005 ppm
Manitoba	OEL TWA (ppm)	0.005 ppm
New Brunswick	OEL TWA (mg/m³)	0.034 mg/m³
New Brunswick	OEL TWA (ppm)	0.005 ppm
New Foundland & Labrador	OEL TWA (ppm)	0.005 ppm
Nova Scotia	OEL TWA (ppm)	0.005 ppm
Nunavut	OEL STEL (ppm)	0.015 ppm
Nunavut	OEL TWA (ppm)	0.005 ppm
Northwest Territories	OEL STEL (ppm)	0.015 ppm
Northwest Territories	OEL TWA (ppm)	0.005 ppm
Ontario	OEL Ceiling (ppm)	0.02 ppm (designated substances regulation)
Ontario	OEL TWA (ppm)	0.005 ppm (designated substances regulation)
Prince Edward Island	OEL TWA (ppm)	0.005 ppm
Saskatchewan	OEL STEL (ppm)	0.015 ppm
Saskatchewan	OEL TWA (ppm)	0.005 ppm

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gas mask. Gloves. Protective clothing. Safety glasses.

Hand protection:

Protective gloves

Eye protection:

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Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear respiratory protection.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: clear
Odor	: Odorless
Odor threshold	: No data available
pH	: 7
Relative evaporation rate (butyl acetate=1)	: < 1
Relative evaporation rate (ether=1)	: No data available
Melting point	: Not applicable
Freezing point	: -40 °C
Boiling point	: 150 - 213 °C
Flash point	: > 160 °C SETAFLASH CLOSED CUP
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapor pressure	: 0.1 mm Hg
Vapor pressure at 50 °C	: No data available
Relative vapor density at 20 °C	: > 1
Specific gravity	: 1.15
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 600 mPa.s @ 25°C
Explosion limits	: No data available

9.2. Other information

VOC content	: 0 g/l
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7).
Incompatible materials	: Oxidizing agent. acids. Bases.
Hazardous decomposition products	: Toxic gases. Carbon dioxide. Nitrogen oxides. carbon oxides.

SECTION 11: Toxicological information

Likely routes of exposure	: Dermal. Inhalation. oral.
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11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Inhalation:vapour: Harmful if inhaled.

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ATE CA (vapours)	11 mg/l/4h
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Hexamethylene diisocyanate (822-06-0)

LD50 oral rat	738 mg/kg
LD50 dermal rabbit	593 mg/kg
LC50 inhalation rat (mg/l)	0.06 mg/l/4h

Skin corrosion/irritation	: Not classified pH: 7
Serious eye damage/irritation	: Not classified pH: 7
Respiratory or skin sensitization	: May cause an allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: May cause respiratory irritation.
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Hexamethylene diisocyanate (822-06-0)

LC50 fish 1	26.1 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
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12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.

SECTION 14: Transport information

14.1. Basic shipping description

In accordance with TDG

Transportation of Dangerous Goods

Not regulated for transport

14.2. Transport information/DOT

Department of Transport

Not regulated for transport

14.3. Air and sea transport

IMDG

Not regulated for transport

IATA

Not regulated for transport

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SECTION 15: Regulatory information

15.1. National regulations

Hexamethylene diisocyanate (822-06-0)

Listed on the Canadian DSL (Domestic Substances List) inventory.

15.2. International regulations

Hexamethylene diisocyanate (822-06-0)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on Industrial Safety and Health Law Substances (ISHL)
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Poisonous and Deleterious Substances Control Law
Pollutant Release and Transfer Register Law (PRTR Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

SECTION 16: Other information

SDS Major/Minor : None
Date of issue : 08/09/2016
Revision date : 06/01/2021
Supersedes : 12/18/2018

Full text of H-phrases:

H302	Harmful if swallowed
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H330	Fatal if inhaled
H332	Harmful if inhaled
H334	May cause an allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation

SDS Canada (GHS) - Cloverdale

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