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Identification

1.1. Product identifier

Product Identity Astrolane EZ Base Coat

Alternate Names Product Code: 62860100000-A Astrolane EZ Base

Coat Activator and 62860088001-R Astro EZ Topcoat

Resin

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use Two pack performance coatings. Restricted to

professional users.

Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name Brunswick Bowling Products, LLC.

525 W. Laketon Ave. Muskegon, MI 49441 USA

Emergency

24 hour Emergency Telephone No. (CHEMTEL) International: +01-813-248-0585

US: 1-800-255-3924

Customer Service: Brunswick Bowling Products, LLC 231-725-4966

Please see attached Safety Data Sheets for the kit components

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1. Identification

1.1. Product identifier

Product Identity Astrolane EZ Base Coat Activator

Alternate Names Product Code: 62860100000-A

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use Two pack performance coatings. Restricted to

professional users.

Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name Brunswick Bowling Products, LLC.

525 W. Laketon Ave.

Muskegon, MI 49441 USA

Emergency

24 hour Emergency Telephone No. (CHEMTEL) International: +01-813-248-0585

US: 1-800-255-3924

Customer Service: Brunswick Bowling Products, LLC 231-725-4966

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Flam. Liq. 3;H226 Flammable liquid and vapor.

Acute Tox. 4;H332 Harmful if inhaled.
Skin Irrit. 2;H315 Causes skin irritation.

Eye Irrit. 2;H319 Causes serious eye irritation.

Skin Sens. 1;H317 May cause an allergic skin reaction.

Resp. Sens. 1;H334 May cause allergy or asthma symptoms of breathing difficulties if inhaled.

STOT SE 3;H335 May cause respiratory irritation.

STOT RE 2;H373 May cause damage to organs through prolonged or repeated exposure. Specific Target

Organs: (Not Available)

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2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.







Danger

H226 Flammable liquid and vapor.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

[Prevention]:

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.

P235 Keep cool.

P240 Ground / bond container and receiving equipment.

P241 Use explosion-proof electrical / ventilating / light / equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

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P313 Get medical advice / attention.

P314 Get Medical advice / attention if you feel unwell.

P321 Specific treatment (see information on this label).

P333+313 If skin irritation or a rash occurs: Get medical advice / attention.

P337+313 If eye irritation persists: Get medical advice / attention.

P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P341 If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P342+311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor / physician.

P362 Take off contaminated clothing and wash before reuse.

P363 Wash contaminated clothing before reuse.

P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

[Storage]:

P403+233 Store in a well ventilated place. Keep container tightly closed.

P405 Store locked up.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Diphenylmethane diisocyanate, mixed isomers CAS Number: 0026447-40-5	25 - 50	Acute tox. 4;H332 STOT RE 2;H373 Eye Irrit. 2;H319 STOT SE 3;H335 Skin Irrit. 2;H315 Resp. Sens. 1;H334 Skin Sens. 1;H317	[1]
Propylene glycol monomethyl ether acetate CAS Number: 0000108-65-6	25 - 50	Flam. Liq. 3;H226	[1]
1-methyl-2-pyrrolidone CAS Number: 0000872-50-4	0.10 - 1.0	Repr. 1B;H360D (> 5%) Eye Irrit. 2;H319 STOT SE 3;H335 Skin Irrit. 2;H315	[1]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

^[1] Substance classified with a health or environmental hazard.

^[2] Substance with a workplace exposure limit.

^[3] PBT-substance or vPvB-substance.

^{*}The full texts of the phrases are shown in Section 16.

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4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention.

Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give

artificial respiration. If unconscious, place in the recovery position and obtain immediate

medical attention. Give nothing by mouth.

Eyes Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and

seek medical attention.

Skin Wash immediately with soap and water, removing contaminated clothes and shoes. Wash

contaminated clothing before reuse. In case of skin irritation or allergic reactions, see a

physician.

Ingestion Not an expected route of exposure.

4.2. Most important symptoms and effects, both acute and delayed

Overview Notes to Physician: Treat Symptomatically. May cause sensitization by inhalation and skin

contact.

Protection of First-Responders: Avoid contact with skin, eyes and clothing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; use artificial respiration with the aid of a pocket mask equipped with a one-way valve or other respiratory medical

device.

See section 2 for further details.

Inhalation Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms

of breathing difficulties if inhaled.

Eyes Causes serious eye irritation.

Skin May cause an allergic skin reaction. Causes skin irritation.

5. Fire-fighting measures

5.1. Extinguishing media

Foam, CO₂, Dry Chemical

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Thermal decomposition can lead to the release of irritating gases and vapors.

Keep away from heat / sparks / open flames / hot surfaces - No smoking.

Keep cool.

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Ground / bond container and receiving equipment.

Use explosion-proof electrical / ventilating / light / equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advice for fire-fighters

Use self-contained breathing apparatus. Use water for cooling container to prevent pressure buildup, auto-ignition, or explosion. Avoid spreading burning liquid with water.

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6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing. Do not take internally. Ensure adequate ventilation. Avoid prolonged breathing of vapors.

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8. Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations. (See section 13).

7. Handling and storage

7.1. Precautions for safe handling

Use personal protective equipment. Avoid contact with skin, eyes and clothing.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Precautions should be taken to minimize exposure to atmospheric humidity or water as carbon dioxide may be formed which, in closed containers can result in pressurization. Care should be taken when re-opening partly used containers.

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used.

Examination of lung function should be carried out on a regular basis on persons applying this preparation.

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Incompatible materials: No data available. Store in a well-ventilated place. Keep cool. See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000108-65-6		OSHA	No Established Limit
	acetate	ACGIH	TWA: 50 ppm STEL: 75 ppm
		NIOSH	No Established Limit
		Supplier	No Established Limit
0000872-50-4	0000872-50-4 1-methyl-2-pyrrolidone		No Established Limit
	ACGIH	No Established Limit	
		NIOSH	No Established Limit
	Supplier	TWA 10.0 ppm WEEL 1 ppm, 4 mgm3 California permissible exposure limits for chemical contaminants	
0026447-40-5	Diphenylmethane diisocyanate, mixed	OSHA	No Established Limit
	isomers	ACGIH	No Established Limit
	NIOSH	No Established Limit	
		Supplier	No Established Limit

8.2. Exposure controls

Respiratory If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be

provided in accordance with current local regulations.

Eyes Safety glasses with side shields

Skin Chemical resistant gloves/gauntlets, boots and apron (where risk of splashing)

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by the

use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits

suitable respiratory protection must be worn.

Other Work Practices Provide eye bath and safety shower. Use good personal hygiene practices. Wash hands

before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash

thoroughly before reuse.

See section 2 for further details. - [Prevention]:

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9. Physical and chemical properties

Appearance Light Yellow Liquid

Odor Mild Solvent
Odor threshold Not determined
pH Not Measured

Melting point / freezing pointNot MeasuredInitial boiling point and boiling range319°F - 597°F

Flash Point 104°F TCC
Evaporation rate (Ether = 1) Not Measured
Flammability (solid, gas) Not Applicable

Upper/lower flammability or explosive limits

Lower Explosive Limit: 0.3%

Upper Explosive Limit: 12.6%

Vapor pressure (Pa) Not Measured **Vapor Density** Not Measured **Specific Gravity** 1.1 (H2O = 1)Solubility in Water Not Measured Not Measured Partition coefficient n-octanol/water (Log Kow) **Auto-ignition temperature** Not Measured **Decomposition temperature** Not Measured Viscosity (cSt) Not Measured

9.2. Other information

VOC Content

No other relevant information.

10. Stability and reactivity

370 g/L

10.1. Reactivity

Polymerization can occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials

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No data available.

10.6. Hazardous decomposition products

Thermal decomposition can lead to the release of irritating gases and vapors.

11. Toxicological information

Acute toxicity

Based on the properties of the isocyanate content of this product, respiratory exposure may cause acute irritation and/or sensitization of the respiratory system resulting in asthmatic symptoms, wheezing and a tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to airborne concentrations of isocyanates well below the occupational exposure limit. Repeated exposure may lead to permanent respiratory disability.

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Diphenylmethane diisocyanate, mixed isomers - (26447-40-5)	6,400.00, Rat - Category: NA	6,200.00, Rabbit - Category: NA	No data available	No data available	No data available
Propylene glycol monomethyl ether acetate - (108-65-6)	8,532.00, Rat - Category: NA	5,000.00, Rabbit - Category: 5	No data available	No data available	No data available
1-methyl-2-pyrrolidone - (872-50-4)	3,914.00, Rat - Category: 5	8,000.00, Rabbit - Category: NA	No data available	No data available	5,100.00, Rat - Category: 4

Carcinogen Data

CAS No.	Ingredient	Source	Value
0000108-65-6	Propylene glycol monomethyl ether	OSHA	Select Carcinogen: No
	acetate	NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0000872-50-4	1-methyl-2-pyrrolidone	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0026447-40-5	Diphenylmethane diisocyanate,	OSHA	Select Carcinogen: No
	mixed isomers	NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

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Classification	Category	Hazard Description
Acute toxicity (oral)		Not Applicable
Acute toxicity (dermal)		Not Applicable
Acute toxicity (inhalation)	4	Harmful if inhaled.
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	2	Causes serious eye irritation.
Respiratory sensitization	1	May cause allergy or asthma symptoms of breathing difficulties if inhaled.
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity		Not Applicable
Carcinogenicity		Not Applicable
Reproductive toxicity		Not Applicable
STOT-single exposure	3	May cause respiratory irritation.
STOT-repeated exposure	2	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard		Not Applicable

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Diphenylmethane diisocyanate, mixed isomers - (26447-40-5)	Not Available	1,000.00, Daphnia magna	4,300.00 (72 hr), Chlorella vulgaris
Propylene glycol monomethyl ether acetate - (108-65-6)	100.00, Salmo gairdneri	500.00, Daphnia magna	Not Available
1-methyl-2-pyrrolidone - (872-50-4)	500.00, Leuciscus idus	1.23, Daphnia magna	500.00 (72 hr), Scenedesmus subspicatus

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

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Air Class: 3



12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

DOT (Domestic Surface IMO / IMDG (Ocean ICAO/IATA Transportation) Transportation)

14.1. UN number UN1263 UN1263 UN1263

14.2. UN proper shipping UN1263, Paint, 3, III, Limited UN1263, Paint, 3, III, Limited UN 1263, Paint, 3, III

name Quantity Quantity

14.3. Transport hazard DOT Hazard Class: 3 IMDG: 3

class(es)

Sub Class: Not Applicable Packing Instruction:
355

14.4. Packing group III III III

14.5. Environmental hazards

IMDG Marine Pollutant: No;

14.6. Special precautions for user

No further information EMS CODE: F-E S-E

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected

regulations are represented.

Toxic Substance All components of this material are either listed or exempt from listing on the TSCA

Control Act (TSCA) Inventory. WHMIS Classification B3 D2A

US EPA Tier II Hazards Fire: Yes

Sudden Release of Pressure: No Reactive: No

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Immediate (Acute): Yes Delayed (Chronic): Yes

EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

1-methyl-2-pyrrolidone

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Pennsylvania RTK Substances (>1%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H226 Flammable liquid and vapor.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H360D May damage the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

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The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered as 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 material in any process, unless specified in the text.

End of Document

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1. Identification

1.1. Product identifier

Product IdentityAstrolane EZ Basecoat ResinAlternate NamesProduct Code: 62860100000-R

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use Two pack performance coatings. Restricted to

professional users.

Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name Brunswick Bowling Products, LLC.

525 W. Laketon Ave.

Muskegon, MI 49441 USA

Emergency

24 hour Emergency Telephone No. CHEMTEL +1 813-248-0585

Customer Service: Brunswick Bowling & Billiards 231-725-4966

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Flam. Liq. 3;H226 Flammable liquid and vapor.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



H226 Flammable liquid and vapor.

[Prevention]:

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking. P235 Keep cool.

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P240 Ground / bond container and receiving equipment.

P241 Use explosion-proof electrical / ventilating / light / equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

[Storage]:

P403+233 Store in a well ventilated place. Keep container tightly closed.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Castor oil CAS Number: 0008001-79-4	75 - 100	Not Classified	[1]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

- [1] Substance classified with a health or environmental hazard.
- [2] Substance with a workplace exposure limit.
- [3] PBT-substance or vPvB-substance.

4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention.

Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give

artificial respiration. If unconscious place in the recovery position and obtain immediate

medical attention. Give nothing by mouth.

Eyes Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and

seek medical attention.

Skin Wash immediately with soap and water, removing contaminated clothes and shoes. Wash

contaminated clothing before reuse. In case of skin irritation or allergic reactions, see a

physician.

The full texts of the phrases are shown in Section 16.

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Ingestion Not an expected route of exposure.

4.2. Most important symptoms and effects, both acute and delayed

Overview Notes to Physician: Treat Symptomatically

Protection of First-Responders: Avoid contact with skin, eyes and clothing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; use artificial respiration with the aid of a pocket mask equipped with a one-way valve or other respiratory medical device.

See section 2 for further details.

5. Fire-fighting measures

5.1. Extinguishing media

Foam, CO₂, Dry Chemical

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Thermal decomposition can lead to the release of irritating gases and vapors.

Keep away from heat / sparks / open flames / hot surfaces - No smoking.

Keep cool.

Ground / bond container and receiving equipment.

Use explosion-proof electrical / ventilating / light / equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

5.3. Advice for fire-fighters

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat.

Use self-contained breathing apparatus. Use water for cooling container to prevent pressure buildup, auto-ignition, or explosion. Avoid spreading burning liquid with water.

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6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Eliminate sources of ignition; keep away from open flame and extreme heat.

Full encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Avoid contact with skin, eyes and clothing. Avoid prolonged breathing of vapors.

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

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Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations. (See section 13).

Clean, preferably with a detergent. Do not use solvents.

Do not allow spills to enter drains or watercourses.

If drains, sewers, streams or lakes are contaminated, inform the local water company immediately. In the case of contamination of rivers, streams or lakes the Environmental Protection Agency should also be informed.

7. Handling and storage

7.1. Precautions for safe handling

Use personal protective equipment. Avoid contact with skin, eyes and clothing.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: No data available.

Store in a well-ventilated place. Keep cool.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0008001-79-4	Castor oil	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

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Carcinogen Data

CAS No.	Ingredient	Source	Value
0008001-79-4	Castor oil	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls

Respiratory If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be

provided in accordance with current local regulations.

Eyes Safety glasses with side shields

Skin Chemical resistant gloves/gauntlets, boots and apron (where risk of splashing)

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by the

use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits

suitable respiratory protection must be worn.

Other Work Practices Provide eye bath and safety shower. Use good personal hygiene practices. Wash hands

before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash

thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance Light Yellow Liquid

Odor Mild Solvent

Odor threshold

pH

Not Measured

Melting point / freezing point

Initial boiling point and boiling range

Flash Point

Not Measured

302°F - 597°F

113°F TCC

Evaporation rate (Ether = 1)

Flammability (solid, gas)

Not Applicable

Upper/lower flammability or explosive limits Lower Explosive Limit: 0.6%

Upper Explosive Limit: 14.0%

Vapor pressure (Pa)Not MeasuredVapor DensityNot Measured

Specific Gravity 1.2

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Solubility in Water

Partition coefficient n-octanol/water (Log Kow)

Auto-ignition temperature

Decomposition temperature

Viscosity (cSt)

Not Measured

Not Measured

Not Measured

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Polymerization can occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

Thermal decomposition can lead to the release of irritating gases and vapors.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Castor oil - (8001-79-4)	No data available	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)		Not Applicable
Acute toxicity (dermal)		Not Applicable

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Acute toxicity (inhalation)	 Not Applicable
Skin corrosion/irritation	 Not Applicable
Serious eye damage/irritation	 Not Applicable
Respiratory sensitization	 Not Applicable
Skin sensitization	 Not Applicable
Germ cell mutagenicity	 Not Applicable
Carcinogenicity	 Not Applicable
Reproductive toxicity	 Not Applicable
STOT-single exposure	 Not Applicable
STOT-repeated exposure	 Not Applicable
Aspiration hazard	 Not Applicable

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish,	48 hr EC50 crustacea,	ErC50 algae,
	mg/l	mg/l	mg/l
Castor oil - (8001-79-4)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

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13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

DOT (Domestic Surface IMO / IMDG (Ocean ICAO/IATA Transportation) Transportation)

14.1. UN number UN1263 UN1263 UN1263

14.2. UN proper shipping UN1263, Paint, 3, III, LTD UN1263, Paint, 3, III, LTD UN1263, Paint, 3, III UN1263, P

14.3. Transport hazard DOT Hazard Class: 3 IMDG: 3 Air Class: 3

class(es) Sub Class: Not Applicable Packing Instructions: 355

14.4. Packing group III III III

14.5. Environmental hazards

IMDG Marine Pollutant: No;

14.6. Special precautions for user

No further information EMS CODE: F-E S-E

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected

regulations are represented.

Toxic Substance All components of this material are either listed or exempt from listing on the TSCA

Control Act (TSCA) Inventory.

WHMIS Classification B3

US EPA Tier II Hazards Fire: Yes

Sudden Release of Pressure: No

Reactive: No

Immediate (Acute): No Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

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Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Pennsylvania RTK Substances (>1%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is: Not applicable

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered as 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 material in any process, unless specified in the text.

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