

# ANTLER 360 Unpacked

## Safety Data Sheet

Canada HPR

Issue date: 03/25/2020

Version: 1.0

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Product name : ANTLER 360 Unpacked  
Other means of identification : PMRA # 33866

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

Use of the substance/mixture : Herbicide  
Restrictions on use : No additional information available

#### 1.3. Details of the supplier of the safety data sheet

##### Address:

Winfield United Canada, ULC  
101-302 Wellman Lane  
Saskatoon, SK S7T-0J1  
T: 1-888-975-4769

#### 1.4. Emergency telephone number

Emergency number : Exposure calls (PROPHARMA): 1-866-303-6952 or +1-651-603-3432 (international)  
Spill calls (CHEMTREC): 1-800-424-9300 or +1-703-527-3887 (international)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GHS classification

Flam. Liq. 4 H227  
Eye Irrit. 2B H320  
Carc. 2 H351  
STOT RE 2 H373  
Asp. Tox. 1 H304  
Aquatic Chronic 2 H411

Full text of H statements : see section 16

#### 2.2. Label elements

##### GHS-US labelling

Hazard pictograms (GHS) :



GHS08

GHS09

Signal word (GHS) :

Danger

Hazard statements (GHS) :

H227 - Combustible liquid  
H304 - May be fatal if swallowed and enters airways.  
H320 - Causes eye irritation  
H351 - Suspected of causing cancer.  
H373 - May cause damage to organs through prolonged or repeated exposure.  
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (GHS) :

P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P310 - If swallowed: Immediately call a poison center or doctor.  
P305+P351+P338 - 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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P308+P313 - If exposed or concerned: Get medical advice/attention.  
P314 - Get medical advice/attention if you feel unwell.  
P331 - Do NOT induce vomiting.  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
P370+P378 - In case of fire: Use media other than water to extinguish.  
P391 - Collect spillage.  
P403+P235 - Store in a well-ventilated place. Keep cool.  
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)

Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	% (w/w)	GHS classification
Heavy Aromatic Naphtha Solvent	(CAS-No.) 64742-94-5	50 - 60	Flam. Liq. 4, H227 Asp. Tox. 1, H304
Clethodim	(CAS-No.) 99129-21-2	36.7	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
Naphthalene	(CAS-No.) 91-20-3	3 - 7	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Anionic/nonionic surfactant blend	(CAS-No.) trade secret	1 - 5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319
1,2,4-trimethylbenzene	(CAS-No.) 95-63-6	0.5 - 1.5	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 Aquatic Chronic 2, H411

\*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Artificial respiration and/or oxygen if necessary. Call a POISON CENTER/doctor if you feel unwell.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash contaminated clothing before reuse.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	: Do NOT induce vomiting unless directed to do so by medical personnel. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects	: Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.
Symptoms/effects after inhalation	: Inhalation may cause: irritation, coughing, shortness of breath.
Symptoms/effects after skin contact	: May cause slight irritation.
Symptoms/effects after eye contact	: Causes eye irritation.

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Symptoms/effects after ingestion : May be fatal if swallowed and enters airways. Risk of aspiration pneumonia. May damage lungs if swallowed and aspirated.

### 4.3. Indication of any immediate medical attention and special treatment needed

All treatments should be based on observed signs and symptoms of distress in the patient.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water fog.  
Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustible liquid.  
Explosion hazard : May form flammable/explosive vapour-air mixture.  
Reactivity : Liquid evaporates and forms vapors/fumes that can catch fire and burn with explosive violence.

### 5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter drains or water courses. Use water spray or fog for cooling exposed containers.  
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear fire/flammable resistant/retardant clothing. Wear a self contained breathing apparatus.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. Avoid all eye and skin contact and do not breathe vapour and mist.

#### 6.1.1. For non-emergency personnel

Protective equipment : Wear suitable gloves. rubber. Chemical goggles or safety glasses.  
Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Wear suitable gloves. rubber. Chemical goggles or safety glasses.  
Emergency procedures : Stop leak if safe to do so. Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Do not discharge into drains or the environment.

### 6.3. Methods and material for containment and cleaning up

For containment : Absorb and/or contain spill with inert material, then place in suitable container. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.  
Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

### 6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : No open flames. No smoking. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing mist/vapours/spray.  
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.  
Storage conditions : Keep in fireproof place. Keep only in the original container in a cool well ventilated place. Keep container closed when not in use.  
Incompatible products : strong oxidizers. Strong acids. Strong bases.  
Incompatible materials : Heat sources.

### 7.3. Specific end use(s)

No additional information available

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

ANTLER 360 Unpacked	
ACGIH	Not applicable
OSHA	Not applicable
Clethodim (99129-21-2)	
ACGIH	Not applicable
OSHA	Not applicable

Heavy Aromatic Naphtha Solvent (64742-94-5)		
ACGIH	ACGIH STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>

Naphthalene (91-20-3)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup>
ACGIH	ACGIH TWA (ppm)	10 ppm
ACGIH	ACGIH STEL (mg/m <sup>3</sup> )	79 mg/m <sup>3</sup>
ACGIH	ACGIH STEL (ppm)	15 ppm
ACGIH	Remark (ACGIH)	Hematologic eff; URT & eye irr; Skin; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans: The agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) that may not be relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence does not suggest that the agent is likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure)
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	10 ppm

1,2,4-trimethylbenzene (95-63-6)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	123 mg/m <sup>3</sup>
ACGIH	ACGIH TWA (ppm)	25 ppm
OSHA	Not applicable	

Anionic/nonionic surfactant blend (trade secret)	
ACGIH	Not applicable
OSHA	Not applicable

#### 8.2. Appropriate engineering controls

- Appropriate engineering controls : Avoid creating mist or spray. Avoid splashing. Either local exhaust or general room ventilation is usually required.
- Environmental exposure controls : Avoid release to the environment.

#### 8.3. Individual protection measures/Personal protective equipment

##### Personal protective equipment:

Avoid all unnecessary exposure.

##### Hand protection:

Wear suitable gloves resistant to chemical penetration. nitrile rubber gloves. barrier laminate. Butyl rubber. Viton

##### Eye protection:

In case of splashing or aerosol production: protective goggles.

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### Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Use an approved respirator equipped with oil/mist cartridges.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: amber
Odour	: aromatic
Odour threshold	: No data available
pH	: ≤ 5
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 61 °C Closed Cup
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 8.08 – 8.28
Solubility	: insoluble in water. Soluble in hydrocarbon solvents.
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: 20.408 mm <sup>2</sup> /s (calculated)
Viscosity, dynamic	: 20 cP @ 25°C
Explosive limits	: No data available
Explosive properties	: Product is not explosive.
Oxidising properties	: No oxidizing properties.

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Liquid evaporates and forms vapors/fumes that can catch fire and burn with explosive violence.

### 10.2. Chemical stability

Combustible liquid. May form flammable/explosive vapour-air mixture.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Open flame. Overheating. Direct sunlight. Heat. Sparks.

### 10.5. Incompatible materials

Strong acids. Strong oxidizers. Strong bases.

### 10.6. Hazardous decomposition products

May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Likely routes of exposure	: Inhalation. Skin and eye contact.
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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<b>ANTLER 360 Unpacked</b>	
LD50 oral rat	3129 mg/kg
LD50 dermal rabbit	> 5050 mg/kg
LC50 inhalation rat (mg/l)	> 2.23 mg/l/4h
ATE (oral)	3129 mg/kg bodyweight
<b>Clethodim (99129-21-2)</b>	
LD50 oral rat	1360 – 1630 mg/kg
LD50 dermal rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 inhalation rat (mg/l)	3.9 mg/l/4h
ATE (oral)	1360 mg/kg bodyweight
ATE (vapours)	3.9 mg/l/4h
ATE (dust,mist)	3.9 mg/l/4h
<b>Heavy Aromatic Naphtha Solvent (64742-94-5)</b>	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5.28 mg/l/4h
<b>Naphthalene (91-20-3)</b>	
LD50 oral rat	490 mg/kg
LD50 dermal rabbit	20 g/kg
LC50 inhalation rat (mg/l)	> 340 mg/m <sup>3</sup> 1 hour
ATE (oral)	490 mg/kg bodyweight
ATE (dermal)	20000 mg/kg bodyweight
<b>1,2,4-trimethylbenzene (95-63-6)</b>	
LD50 oral rat	3415 mg/kg
LD50 dermal rat	3440 mg/kg
LC50 inhalation rat (ppm)	954 ppm
ATE (oral)	3415 mg/kg bodyweight
ATE (dermal)	3440 mg/kg bodyweight
ATE (gases)	4500 ppmv/4h
ATE (vapours)	11 mg/l/4h
ATE (dust,mist)	1.5 mg/l/4h

Skin corrosion/irritation : Not classified. (Slightly irritant but not relevant for classification)  
Serious eye damage/irritation : Causes eye irritation. (Irritating to rabbits on ocular application)  
Respiratory or skin sensitisation : Not classified. (No sensitizing reaction was observed for guinea pigs)  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Suspected of causing cancer.

<b>Naphthalene (91-20-3)</b>	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen

Reproductive toxicity : Not classified  
STOT-single exposure : Not classified

<b>1,2,4-trimethylbenzene (95-63-6)</b>	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

<b>Clethodim (99129-21-2)</b>	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : May be fatal if swallowed and enters airways.  
Viscosity, kinematic : 20.408 mm<sup>2</sup>/s (calculated)

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Symptoms/effects	: Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.
Symptoms/effects after inhalation	: Inhalation may cause: irritation, coughing, shortness of breath.
Symptoms/effects after skin contact	: May cause slight irritation.
Symptoms/effects after eye contact	: Causes eye irritation.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways. Risk of aspiration pneumonia. May damage lungs if swallowed and aspirated.

## SECTION 12: Ecological information

### 12.1. Toxicity

<b>Clethodim (99129-21-2)</b>	
LC50 fish 1	> 33 mg/l 96 hr <i>Lepomis macrochirus</i> (Bluegill)
EC50 crustacea	20.2 mg/l
ErC50 (algae)	11.4 mg/l Green Algae
<b>Naphthalene (91-20-3)</b>	
LC50 fish 1	> 0.91 (0.91 – 2.82) mg/l <i>Oncorhynchus mykiss</i>
EC50 crustacea	≥ 1.96 mg/l
EC50 other aquatic organisms 1	33 mg/l
LC50 fish 2	> 1 (1 – 6.5) mg/l <i>Pimpephales promelas</i>
LOEC (acute)	3.2 mg/l
NOEC (acute)	1.8 mg/l
<b>1,2,4-trimethylbenzene (95-63-6)</b>	
LC50 fish 1	7.72 mg/l
LC50 other aquatic organisms 1	3.6 mg/l
EC50 other aquatic organisms 1	2.356 mg/l

### 12.2. Persistence and degradability

<b>ANTLER 360 Unpacked</b>	
Persistence and degradability	May cause long-term adverse effects in the environment.
<b>Heavy Aromatic Naphtha Solvent (64742-94-5)</b>	
Persistence and degradability	Not rapidly degradable.
Biodegradation	39 %

### 12.3. Bioaccumulative potential

<b>ANTLER 360 Unpacked</b>	
Bioaccumulative potential	Not established.
<b>Naphthalene (91-20-3)</b>	
BCF fish 1	≥ 427 (427 – 1158)

### 12.4. Mobility in soil

<b>ANTLER 360 Unpacked</b>	
Ecology - soil	Not established.
<b>Heavy Aromatic Naphtha Solvent (64742-94-5)</b>	
Mobility in soil	Migrates to soil.

### 12.5. Other adverse effects

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Sewage disposal recommendations	: Do not dispose of waste into sewer.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.

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### SECTION 14: Transport information

#### Transportation of Dangerous Goods

Transport document description	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (naphthalene), 9, III
UN-No. (TDG)	: UN 3082
Proper Shipping Name (Transportation of Dangerous Goods)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Primary Hazard Classes	: 9 - Class 9 - Miscellaneous Products, Substances or Organisms
Packing group	: III - Minor Danger
Special Provisions	: Small means of containment (< = 450 L) Not Regulated; Large means of containment (> 450 L) Regulated as stated

#### Transport by sea

##### IMDG

Transport hazard class(es) (IMDG)

: 9

:



Marine pollutant

: Yes

UN-No. (IMDG)

: 3082

Transport document description (IMDG)

: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (naphthalene), 9, III, MARINE POLLUTANT

Class (IMDG)

: 9 - Miscellaneous dangerous substances and articles

Packing group (IMDG)

: III - substances presenting low danger

EmS-No. (Fire)

: F-A

EmS-No. (Spillage)

: S-F

#### Air transport

##### IATA

Transport hazard class(es) (IATA)

: 9

:



Marine pollutant

: Yes

UN-No. (IATA)

: 3082

Transport document description (IATA)

: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (naphthalene), 9, III

Class (IATA)

: 9 - Miscellaneous Dangerous Goods

Packing group (IATA)

: III - Minor Danger

### SECTION 15: Regulatory information

#### CANADA

##### Clethodim (99129-21-2)

Not listed on the Canadian DSL (Domestic Substances List) inventory.

##### Heavy Aromatic Naphtha Solvent (64742-94-5)

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

##### Naphthalene (91-20-3)

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

##### 1,2,4-trimethylbenzene (95-63-6)

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



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### SECTION 16: Other information

#### Data sources

: European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>. European Chemicals Agency (ECHA) Registered Substances list. Accessed at <http://echa.europa.eu/>. Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition. National Fire Protection Association; Fire Protection Guide to Hazardous Materials; 10th edition. WHMIS: The Workplace Hazardous Materials Information System: Canada's national hazard communication standard. Manufacturer Information.

#### Full text of H-statements:

H226	Flammable liquid and vapour.
H227	Combustible liquid
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H320	Causes eye irritation
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

#### Abbreviations and acronyms:

	ACGIH (American Conference of Government Industrial Hygienists)
	ATE: Acute Toxicity Estimate
	CAS (Chemical Abstracts Service) number
	CLP: Classification, Labelling, Packaging.
	DNEL: Derived No Effect Level
	EC50: Environmental Concentration associated with a response by 50% of the test population.
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals)
	LD50: Lethal Dose for 50% of the test population
	OSHA: Occupational Safety & Health Administration
	STEL: Short Term Exposure Limits
	TSCA: Toxic Substances Control Act
	TWA: Time Weighted Average

#### SDS Prepared by: The Redstone Group, dba SafeBridge Consultants, Inc.

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