

SAFETY DATA SHEET

1. Identification:

Product Identifier:	Perlan®
Other Means of Identification:	PCPA registration number 29187
Distributed by:	N.M. Bartlett Inc. 4509 Bartlett Rd, Beamsville, Ontario, L0R 1B1, Canada Tel: 905-563-8261
Emergency Phone Number:	Chemtrec 1-800-424-9300 (24 hours) Canutec 613-996-6666 (24 hours)
Recommended Use:	Plant growth regulator solution for improving the shape of red delicious apples by increasing the development of calyx lobes and elongating the fruit.
Restrictions on Use:	Keep out of reach of children

2. Hazard(s) Identification (This product is classified as non-hazardous as defined by Hazardous Products Regulations SOR/2015-17):

Class/Category:	Not Classified
Route of Exposure:	Most likely exposure routes are dermal and oral.
Hazards Not Otherwise Classified:	None known
Signal Word:	None
Symbol(s):	None
Hazard Statements:	None assigned
Precautionary Statements:	Prevention: None assigned Response: None assigned Storage: None assigned Disposal: None assigned

3. Composition:

CAS number:	Component:	Percent:
8030-53-3	Gibberellins A ₄ and A ₇ (GA4/7)	1.8%
1214-39-7	6-BA	1.8%
77-92-9	Citric acid	0.3%

The remainder of the mixture is not required to be disclosed by SOR/2015-17

4. First Aid Measures:

Inhalation:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice
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.
Skin:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice
Ingestion:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything to an unconscious person.
Symptoms/Effects:	Acute: No available information Delayed: No available information
Indication of immediate medical attention and special treatment needed, if necessary:	No available information

5. Fire Fighting Measures:

Extinguishing Media:	Suitable: Water mist, CO ₂ , foam or dry powder. Unsuitable: High power water jet
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Specific Hazards Arising from the Chemical:	At very high temperatures will decompose to form carbon, nitrogen, compounds and aldehydes.						
Protective equipment and Precautions for Firefighters:	Protective clothing must be worn.						
6. Accidental Release Measures:							
Personal Precautions, Protective Equipment and Emergency Procedures:	See Section 8 "Exposure controls/personal protection"						
Methods for Containment and Clean-Up:	In case of spillage use absorbent materials, e.g. sand or sawdust. Isolate spilled material for safe disposal and collect in sealable poly-lined containers. Ventilate area. See also Section 13. Disposal Considerations.						
7. Handling and Storage:							
Precautions for Safe Handling:	Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before re-use. Wear long pants, a long-sleeved shirt, shoes plus socks, chemical-resistant gloves and goggles or a face shield during mixing, loading, application, clean-up, and repair activities. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Do not re-enter or allow re-entry into treated areas until 12 hours after application. Do not contaminate feed or food.						
Conditions for Safe Storage:	Avoid contamination of seed, feed and foodstuffs. See also Section 10. Stability and Reactivity.						
8. Exposure Controls/Personal Protection:							
Component Exposure Limits:							
Substance	Canada Ontario		Canada Quebec		Canada Saskatchewan		ACGIH TLV
	ppm STEL	ppm TWA	ppm STEV	Mg/m3 TWAEV	ppm STEL	ppm TWA	8-hr TWA (ST) STEL (C) Ceiling
57-55-6	-	50 (v)	-	-	-	-	
Appropriate Engineering Controls:	No applicable information available.						
Personal Protective Equipment:	Eyes/Face: Wear suitable eye/face protection. Skin: Wear long sleeved shirt and long pants, socks, shoes, and gloves. Remove and wash contaminated clothing before reuse. Respiratory: A respirator is not normally required when handling this substance.						
9. Physical and Chemical Properties:							
Appearance:	Clear colorless liquid						
Odor:	Alcoholic						
Odor Threshold:	No data available						
pH:	4.2 (1% solution)						
Melting Point/Freezing Point:	No data available						
Boiling Point:	368°F (187°C)						
Flash Point:	222°F (106°C) closed cup						
Evaporation Rate:	No data available						
Flammability/Limits:	Not flammable LFL: not applicable UFL: not applicable						
Vapor Pressure:	29.3 Pa @ 20°C (solvent) 5.5 X 10 ⁻⁶ Pa (6-BAP)						

Vapor Density:	No data available
Relative Density:	1.04 g/ml
Solubility (H₂O):	Soluble
Partition Coefficient:	-0.92 log P _{OW} (solvent)
Auto-Ignition Temperature:	743°C (395°C)
Decomposition Temperature:	No data available
Viscosity:	66.5 cSt at 68°F

10. Chemical Stability and Reactivity Information:

Reactivity:	No applicable information available
Chemical Stability:	Stable in original containers for at least 2 years at ambient temperatures (40-70°F)
Possibility of Hazardous Reactions:	No applicable information available
Conditions to Avoid:	Excessive heat
Incompatible Materials:	Strong oxidizing agents
Hazardous Decomposition Products:	No applicable information available

11. Toxicological Information:

Likely Routes of Exposure:	Most likely exposure by dermal or oral route		
Symptoms:	Inhalation: Non-irritant Eye: Non-irritant Skin: Non-irritant Ingestion: No data available		
Acute Toxicity:	Oral:	LD ₅₀ Rat >2,000 mg/kg	(EPA category III)
	Inhalation:	LC ₅₀ Rat >5.21 mg/l	(EPA category IV)
	Dermal:	LD ₅₀ Rat >2,000 mg/kg	(EPA category III)
Skin Corrosion/Irritation:	Non-irritant (rabbit) (EPA category IV)		
Serious Eye Damage/Eye Irritation:	Non-irritant (rabbit) (EPA category IV)		
Sensitization:	Non-sensitizing (guinea pig)		
Germ Cell Mutagenicity:	Not mutagenic (active ingredient)		
Carcinogenicity:	None of the components of this product are listed as carcinogens by NTP, IARC or OSHA.		
Reproductive/Developmental Toxicity:	No data available.		
Specific Target Organ Toxicity:	Single Exposure: No data available Repeated Exposure: No data available		

12. Ecological Information:

Ecotoxicity:			
	Species:	Exposure Time	LC50/EC50/IC50
	Fish	96 hr	LC50 >100 mg/L
	Daphnia	48 hr	EC50 1,068 mg/L
	Algae	72 hr	EC50 796.6 mg/L
	Bird	48 hr	LD50 >2,000 mg/kg
	Bee	48 hr	LD50 >82 µg (oral) LD50 >100 µg (contact)
	Beneficials	7 day	>23,000 ml product/ha
	Earthworm		>1,000 mg product/kg soil dry weight
General - No known toxic effect on wildlife or beneficial insects			
Persistence and Degradability:	Degrades rapidly under biological conditions.		
Bioaccumulation Potential:	No data available.		
Mobility in Soil:	No data available.		
Other Adverse Effects:	None known		

13. Disposal Considerations:

Disposal Instructions:	<p>Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking to the collection site: Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank. Make the empty container unsuitable for further use.</p> <p>If there is no collection site in your area, dispose of the container in accordance with provincial requirements.</p> <p>For information on the disposal of unused, unwanted product, contact the manufacturer and the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.</p>
14. Transport Information:	
UN/TDG Proper Shipping Name:	Not applicable
Hazard Class:	Not applicable
UN/TDG Number:	Plant growth inhibitor, modifier or regulator
Packing group:	Not applicable
Marine Pollutant:	No
NMFC Number:	101685/65 Plant growth inhibitor, modifier or regulator, NOIBN
15. Regulatory Information:	
DSL/NDL:	1214-39-7, 77-92-9 and 57-55-6 listed in DSL
TSCA:	<p>All components of this product are either listed or are exempt on the TSCA inventory. The following components of this product are subject to the reporting requirements of Section 12(b) of TSCA:</p> <p>None</p>
<p>This chemical is a pesticide product registered by the Pest Management Regulatory Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.</p>	
PMRA signal word:	None
Precautionary Statements:	<p>KEEP OUT OF REACH OF CHILDREN.</p> <p>Causes moderate eye irritation. Avoid contact with eyes, skin or clothing.</p> <p>Harmful if swallowed or absorbed through skin. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before re-use.</p> <p>Wear long pants, a long-sleeved shirt, shoes plus socks, chemical-resistant gloves and goggles or a face shield during mixing, loading, application, clean-up, and repair activities.</p> <p>Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.</p> <p>Do not re-enter or allow re-entry into treated areas until 12 hours after application. Do not contaminate feed or food.</p> <p>If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., contact www.croplife.ca.</p> <p>Do not contaminate feed or food.</p>
Pictograms/Symbols:	None
16. Other Information:	

Product: Perlan
Issue Date: 5/19/17
Version: 4

None	
Issue Date/Version:	5/19/17 version 4
Supersedes:	3/5/16 version 3