Pace International LLC
5661 Branch Road
Wapato, WA 98951
800.936.6750
www.paceint.com

Raynox Plus® Sunburn Protectant

PREHARVEST

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: Raynox Plus® Sunburn Protectant
Product Code: 10276
Product Use: Sunburn Protectant
Product Restrictions: For Agriculture Use Only
Manufacturer/Importer/Supplier/Distributor information
Supplier: Valent U.S.A. LLC
Manufacturer: Pace International, LLC
Address: 5661 Branch Road, Wapato, WA 98951
Phone Number: 800-936-6750 (Monday-Friday, 7:00 a.m. – 4:00 p.m.)
Medical Emergency Phone Number: 888-271-4649 (PROPHARMA/PROSAR)
Transportation Emergency Phone Number: 800-424-9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

GHS Classification in accordance with 29 CFR 1910 (2012 OSHA Hazard Communication Standard)
This chemical is considered non-hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification:
Physical Hazard, Not classified.
Health Hazard, Not classified.
Environmental Hazard, Not classified.

Hazard Symbols:
None.

Signal Word:
None.

Hazard Statements:
This mixture does not meet the criteria for GHS classification.

Hazard(s) not otherwise classified (HNOC): None known.

Other Hazards: None.

Precautionary Statements:

Prevention Statements:
Observe good industrial hygiene practices.

Response Statements:
Wash thoroughly after handling this product.

Storage Statements:
Store in a cool, dry area at room temperature above 45°F and below 90°F. Keep container tightly closed. Keep out of reach of children and livestock.

Disposal Statements:
Dispose of contents/container should be made in accordance with applicable regional, national and local laws and regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical name	CAS #	%
1,2-Propanediol	57-55-6	1 – 5*
Zinc oxide	1314-13-2	0.1 – 1*

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments: *US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200

4. FIRST AID MEASURES

General Advice: Have the product container, label or Safety Data Sheet with you when calling a poison control center, physician, or going for treatment. You may also contact PROPHARMA (PROSAR) 1-888-271-4649 for emergency medical treatment information.

Skin contact: IF ON SKIN: Take off immediately all contaminated clothing. Wash skin with plenty of soap and water/shower, if skin still feels slippery continue washing. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact: IF IN EYES: Hold eye open and rinse cautiously with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes if easy to do, then continue rinsing eye. If eye irritation persists: Get medical advice/attention.

Inhalation:	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
Ingestion:	Give large quantities of water. DO NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious or is convulsing. Obtain medical attention.
Most important Symptoms / effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of any immediate medical attention and special treatment needed:	Provide general supportive measures and treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable Extinguishing Media:	Do not use water jet as an extinguisher, as this will spread the fire.
Special Hazards Arising from the Chemical:	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters:	Firefighters must wear full protective clothing including self-contained breathing apparatus.
Firefighting equipment/instructions:	Move containers from fire area if you can do so without risk.
Specific methods:	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards:	No unusual fire or explosion hazards noted.
Hazardous combustion products:	May include and are not limited to: Oxides of carbon and oxides of nitrogen.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency procedures:	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, (see section 8 of the SDS).
Methods and Materials for Containment and Clean-Up:	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use.
Environmental Precautions:	Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

7. HANDLING & STORAGE

Precautions for Safe Handling:	Use good industrial hygiene practices in handling this material. Wear appropriate personal protective equipment (see Section 8). Wash thoroughly after handling. Do not eat, drink or smoke when using this product.
Conditions for Safe Storage, including any Incompatibilities:	Store in a cool, dry area at room temperature above 45°F and below 90°F. Keep container tightly closed. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children and livestock.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:
US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Zinc oxide (CAS# 1314-13-2)	PEL	5 mg/m3	Fume.
		5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Zinc oxide (CAS# 1314-13-2)	TWA	10 mg/m3	Respirable fraction.
		2 mg/m3	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Zinc oxide (CAS# 1314-13-2)	STEL	15 mg/m3	Dust.
		10 mg/m3	Fume.
	TWA	5 mg/m3	Dust.
		5 mg/m3	Fume.

USA Workplace Environmental Exposure Level (WEEL)

Components	Type	Value	Form
1,2-Propanediol (CAS# 57-55-6)	TWA	10 mg/m3	Aerosol.

Biological Limit Values: No biological exposure limits noted for the ingredients.

Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields (or goggles). Eye wash station and washing facilities should be available.

Skin protection

Hand protection: Nitrile, neoprene, and vinyl (PVC) gloves or other impervious gloves.

Other: Wear protective clothing (long sleeved shirt, pants, and shoes).

Respiratory protection: Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134)

Thermal hazards: Not applicable.

General hygiene considerations: Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

9. PHYSICAL & CHEMICAL PROPERTIES

Physical state:	Liquid	**Upper/Lower flammability or exposure limits:**	Not available
Appearance / Color:	Light tan	**Vapor pressure:**	Not available
Odor:	Waxy	**Vapor density: (air =1)**	Not available
Odor threshold:	Not available	**Specific Gravity: (H_2O = 1)**	1.04
pH:	6 - 8	**Solubility:**	Miscible in water
Melting/Freezing point:	Not available	**Partition coefficient (n-octanol-water):**	Not available
Initial boiling point and boiling range:	212°F (100° C)	**Auto-ignition temperature:**	Not available
Flash point:	Not flammable	**Decomposition temperature:**	Not available
Evaporation rate:	Not available	**Viscosity:**	Not available
Flammability (solid, gas):	Not applicable	**Explosive Properties:**	Not explosive
		Oxidizing Properties:	Not oxidizing

10. STABILITY & REACTIVITY

Reactivity hazards: This product may react with strong oxidizing agents.

Possibility of Hazardous Reactions: No dangerous reaction known under conditions of normal use.

Chemical stability: Material is stable under normal conditions.

Conditions to avoid: Keep away from heat / hot surfaces / sparks / open flames / and other ignition sources. Do not mix with other chemicals.

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition products: May include and are not limited to: Oxides of carbon and oxides of nitrogen.

11. TOXICOLOGICAL INFORMATION

Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Information on likely routes of exposure	
Ingestion	May cause stomach distress, nausea or vomiting.
Inhalation	No adverse effects due to inhalation are expected.
Skin contact	Non-irritating based on test data.
Eye contact	Non-irritating based on test data.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

Components	**Species**	**Test Results**
Raynox Plus (CAS# Mixture)		
Acute		
Dermal		
LD50	Rat	>2000 mg/kg, 24 Hours, Tested
Inhalation		
LC50	Rat	>5.1 mg/L, 4 Hours, Tested
Oral		
LD50	Rat	>2000 mg/kg, Tested
Components	**Species**	**Test Results**
1,2-Propanediol (CAS# 57-55-6)		
Acute		
Dermal		
LD50	Rabbit	>2000 mg/kg, 24 Hours, ECHA
Inhalation		
LC50	Rabbit	>317042 mg/m3, 2 Hours, ECHA
Oral		
LD50	Rat	22000 mg/kg, ECHA
Components	**Species**	**Test Results**
Zinc oxide (CAS# 1314-13-2)		
Acute		
Dermal		
LD50	Rat	>2000 mg/kg, 24 Hours, ECHA
Inhalation		
LC50	Mouse	>5.7 mg/L, 4 Hours, HSDB
	Rat	>5700 mg/m3, 4 Hours, ECHA
Oral		
LD50	Mouse	>5000 mg/kg, ECHA 2000 – 5000 mg/kg, ECHA
	Rat	>15000 mg/kg, ECHA >5000 mg/kg, ECHA >5 g/kg, HSDB

Skin corrosion/irritation:	Non-irritating based on test data.
Exposure minutes	Not available
Erythema value	Not available
Oedema value	Not available
Serious eye damage/eye irritation:	Non-irritating based on test data.
Corneal opacity value	Not available
Iris lesion value	Not available
Conjunctival reddening value	Not available
Conjunctival oedema value	Not available
Recover days	Not available
Respiratory sensitization:	Not a respiratory sensitizer.
Skin sensitization:	Not a skin sensitizer based on test data.

Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic

Carcinogenicity: See below

US. California Proposition 65 - CRT: Listed date/Carcinogenic substance

1,4-Dioxane (CAS# 123-91-1)
Crystalline silica (CAS# 14808-60-7)
Ethylene oxide (CAS# 75-21-8)

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not listed.

Reproductive toxicity: This product is not expected to cause reproductive or developmental effects.

Teratogenicity: Not available.

Specific target organ toxicity - single exposure: Not classified.

Specific target organ toxicity - repeated exposure: Not classified.

Aspiration hazard: Material does not present an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity See below.

Ecotoxicological data

Components		Species	Test Results
1,2-Propanediol (CAS# 57-55-6)			
Crustacea	EC50	Daphnia	10000 mg/L, 48 hours
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	>10000 mg/L, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	710 mg/L, 96 hours

Components		Species	Test Results
Zinc oxide (CAS# 1314-13-2)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	2246 mg/L, 96 hours

Persistence/ degradability: No data is available on the degradability of this product.

Bioaccumulative potential: No data available

Mobility in soil: No data available

Mobility in general: Not available.

Other adverse effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. DISPOSAL CONSIDERATIONS

Disposal instructions: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Disposal should be made in accordance with applicable regional, national and local laws and regulations.

Local disposal Regulations Dispose of in accordance with local regulations.

Hazardous waste code This product, in its original form and concentration, would not designate as a US federal hazardous waste when disposed.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

Transport of Dangerous Goods (TDG) Proof of Classification: Classification method: Classified according to Part 2, sections 2.1-2.8 of the Regulations for the transport of dangerous goods. If applicable, the technical name and product classification will appear below.

U.S. Department of Transportation (DOT)

Not regulated as dangerous goods.

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS: This product is a "Non-Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Zinc oxide (CAS# 1314-13-2)	Listed

SARA 304 Emergency Release Notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance	No
SARA 311/312 Hazardous chemical	No
SARA 313 (TRI reporting)	Not regulated.

OTHER FEDERAL REGULATIONS

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

US STATE REGULATIONS

US - California Hazardous Substances (Director's): Listed substance

Zinc oxide (CAS# 1314-13-2)	Listed

US - Illinois Chemical Safety Act: Listed substance

Zinc oxide (CAS# 1314-13-2)

US - Louisiana Spill Reporting: Listed substance

Zinc oxide (CAS# 1314-13-2)	Listed

US - Michigan Critical Materials Register: Parameter number

Zinc oxide (CAS# 1314-13-2)

US - Minnesota Haz Subs: Listed substance

1,2-Propanediol (CAS# 57-55-6)	Listed
Zinc oxide (CAS# 1314-13-2)	Listed

US - Texas Effects Screening Levels: Listed substance

1,2-Propanediol (CAS# 57-55-6)	Listed
Zinc oxide (CAS# 1314-13-2)	Listed

US. Massachusetts RTK - Substance List

Zinc oxide (CAS# 1314-13-2)

US. New Jersey Worker and Community Right-to-Know Act

1,2-Propanediol (CAS# 57-55-6)
Zinc oxide (CAS# 1314-13-2)

US. Pennsylvania Worker and Community Right-to-Know Law

1,2-Propanediol (CAS# 57-55-6)
Zinc oxide (CAS# 1314-13-2)

US. Rhode Island RTK

1,2-Propanediol (CAS# 57-55-6)
Zinc oxide (CAS# 1314-13-2)

US. California Proposition 65

WARNING: This product can expose you to chemicals including Ethylene oxide, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

US. California Proposition 65 - CRT: Listed date/Carcinogenic substance

1,4-Dioxane (CAS# 123-91-1)	Listed: January 1, 1988
Crystalline silica (CAS# 14808-60-7)	Listed: October 1, 1988
Ethylene oxide (CAS# 75-21-8)	Listed: July 1, 1987

US. California Proposition 65 - CRT: Listed date/Developmental toxin

Ethylene oxide (CAS# 75-21-8)	Listed: August 7, 2009

US. California Proposition 65 - CRT: Listed date/Female reproductive toxin

Ethylene oxide (CAS# 75-21-8)	Listed: February 27, 1987

US. California Proposition 65 - CRT: Listed date/Male reproductive toxin

Ethylene oxide (CAS# 75-21-8)	Listed: August 7, 2009

Inventory status

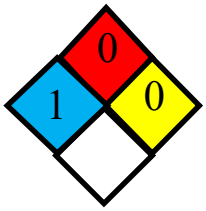
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. OTHER INFORMATION

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X



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This Safety Data Sheet (SDS) may provide more information than the product label but does not replace or modify the product labeling (attached to and accompanying the product container). The product SDS and the product label both provide consistent and important health, safety, and environmental information as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). This requirement covers employers, employees, emergency responders, users and others handling the product. All necessary hazard classification and appropriate precautionary, use, storage, and disposal information are set forth on the labeling and the SDS.

SDS preparation date: December 7, 2020 **Replaces SDS dated:** June 6, 2019

Changes since last revision: Several updates throughout SDS all sections. **Version:** 5