Pace International LLC
5661 Branch Road
Wapato, WA 98951
800.936.6750
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Natural Shine® 320-OR

POSTHARVEST

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: Natural Shine® 320-OR
Product Code: 10085
Product Use: Coating for organically grown fruit
Product Restrictions: For Agriculture Use Only
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 hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification:
Physical, Flammable liquid, Category 3
Health hazards, Not classified
Environmental hazards, Not classified

Hazard Symbols:

Signal Word:
WARNING

Hazard Statements:
H226 Flammable liquid and vapor.

Precautionary Statements
Prevention Statements:
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/Bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P280 Wear protective clothing, chemical resistant gloves, and safety glasses.
Response Statements:
P303/361/353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370/378 In case of fire: Use dry chemical, CO_2 to extinguish.
Storage Statements:
P403/235 Store in a well-ventilated place. Keep cool.
Disposal Statements:
P501 Dispose of contents/container should be made in accordance with applicable regional, national and local laws and regulations.

Other Hazards: None known.
Hazard(s) not otherwise classified (HNOC): None known.
Supplemental information None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS #	Concentration (w/w %)
Ethanol	64-17-5	5 – 10*
Glycerol	56-81-5	1 - 5*
Shellac, sodium salt	2227212-85-1	10 – 30*

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 or physician or going for treatment. You may also contact PROPHARMA (PROSAR) 1-888-271-4649 for emergency medical treatment information.

If Inhaled:	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
If on Skin (or hair):	Take off immediately all contaminated clothing. Wash skin with plenty of soap and water/shower.
If in Eyes:	Hold eye open and rinse cautiously with water for 15 – 20 minutes. Remove contact lenses, after the first 5 minutes if present and easy to do, then continue rinsing eye. If eye irritation persists: Get medical advice/attention.
If Ingested:	Rinse mouth. 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:	Treat patient 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.
Specific hazards arising from the chemical:	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters:	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions:	In case of fire and/or explosion do not breathe fumes. 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:	Flammable liquid and vapor.
Hazardous combustion products:	May include and are not limited to: Oxides of carbon.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Containment / Clean-Up Methods:	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. This product is miscible in water. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading.

Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions: DO NOT discharge effluent containing this product into sewer systems, lakes, streams, ponds, estuaries, oceans or other waters.

7. HANDLING & STORAGE

Precautions for safe handling: Do not handle or store near an open flame, heat or other sources of ignition. Protect material from direct sunlight. When using, do not eat, drink or smoke. Explosion-proof general and local exhaust ventilation. All equipment used when handling the product must be grounded. Take precautionary measures against static discharge. Use non-sparking tools and explosion-proof equipment. Avoid prolonged exposure. Wear appropriate personal protective equipment (see Section 8 of the SDS). Wash thoroughly after handling. Avoid contact with skin, eyes, or clothing. Use good industrial hygiene practices in handling this material.

Conditions for safe storage, including any incompatibilities: Keep away from heat/sparks/open flames/hot surfaces. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry area at room temperature, well ventilated area, and away from direct sunlight. Keep in original container. Keep container tightly closed. Store away from incompatible materials (see Section 10 of the SDS). This product contains no preservatives, so use entire contents within 30 days of opening container. Keep out of reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Components	Type	Value	
Ethanol (CAS 64-17-5)	PEL	1900 mg/m3 1000 ppm	
Glycerol (CAS 56-81-5)	PEL	5 mg/m3 15 mg/m3	Respirable fraction. Total dust.

US. ACGIH Threshold Limit Values

Components	Type	Value
Ethanol (CAS 64-17-5)	STEL	1000 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Ethanol (CAS 64-17-5)	TWA	1900 mg/m3 1000 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines See above

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 chemical goggles, safety glasses or face shield. Eye fountain and washing facilities should be available.

Skin protection

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

Other Use of protective clothing (long sleeve shirt and pants).

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	Use good industrial hygiene practices in handling this material. When using do not eat, drink, or smoke. Routinely wash work clothing and protective equipment to remove contaminants.

9. PHYSICAL & CHEMICAL PROPERTIES

Physical state:	Liquid		
Appearance:	Clear orange/amber	**Upper/Lower flammability limits:**	Not available
Odor:	Slightly alcoholic	**Vapor pressure:**	Not available
Odor threshold:	Not available	**Vapor density: (air =1)**	Not available
pH:	7.1	**Specific Gravity: (H_2O = 1)**	1.02
Melting/Freezing point:	Not available	**Solubility:**	Miscible with water
Pour 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:	117°F (47°C)	**Decomposition temperature:**	Not available
Evaporation rate:	Not available	**Viscosity:**	4.5 Ostwald (200 CPS)
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:	Stable under recommended storage conditions.
Conditions to avoid:	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Do not mix with other chemicals.
Incompatible materials:	Strong oxidizing agents.
Hazardous decomposition products:	May include and are not limited to: Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

Routes of exposure	Inhalation. Eye, Skin contact, Inhalation, Ingestion.
Information on likely routes of exposure	
Ingestion	May cause stomach distress, nausea or vomiting.
Inhalation	Prolonged inhalation may be harmful.
Skin contact:	No adverse effects due to skin contact are expected.
Eye contact:	Direct contact with eyes may cause temporary irritation.
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**
Ethanol (CAS 64-17-5)		
Acute		
Dermal		
LD50	Rabbit	> 15,800 mg/kg
Inhalation		
LC50	Cat	85.4 mg/L, 4.5 Hours, ECHA 43.7 mg/L, 6 Hours, ECHA
	Mouse	> 60000 ppm, 60 Minutes, ECHA 79.4 mg/L, 134 Minutes, ECHA
	Rat	> 115.9 mg/L, 4 Hours, ECHA 31623 ppm, 4 Hours, HMIRA 20000 ppm, 10 Hours, HSDB 51.3 mg/L, 6 Hours, ECHA

Oral		
LD50	Dog	5.5 g/kg, HSDB
	Guinea pig	5600 mg/kg, HSDB
	Monkey	6000 mg/kg
	Mouse	10500 ml/kg, ECHA
		3450 mg/kg, SAX
	Pig	> 5000 mg/kg, ECHA
	Rat	1187 - 2769 mg/kg, ECHA
		12400 mg/kg, ECHA
		10470 mg/kg, ECHA
		7800 ml/kg, ECHA

Components	**Species**	**Test Results**
Glycerol (CAS 56-81-5)		
Acute		
Dermal		
LD50	Guinea pig	45 ml/kg, Days, ECHA
	Rabbit	>10000 mg/kg, SIGMA ALDRICH
		23000 mg/kg, CCOHS
Inhalation		
LC50	Rat	>570 mg/m3, 1 Hours, HSDB
		>143 mg/m³, 4 Hours, CCOHS
		4655 mg.min/l, 7 Hours, ECHA
Oral		
LD50	Guinea pig	>10000 mg/kg, ECHA
	Mouse	23000 mg/kg, CCOHS
		20.8 ml/kg, ECHA
	Rat	>12600 mg/kg, SIGMA ALDRICH
		27200 mg/kg, CCOHS
		18300 mg/kg, ECHA

Skin corrosion/irritation: Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye Irritation: Direct contact with eyes may cause temporary irritation.
Respiratory sensitization: Not a respiratory sensitizer.
Skin sensitization: This product is not expected to cause skin sensitization.
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. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
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.
Chronic effects: Prolonged inhalation may be harmful.

12. ECOLOGICAL INFORMATION

Ecotoxicity See below

Ecotoxicological data

Components		**Species**	**Test Results**
Ethanol (CAS 64-17-5)			
Crustacea	EC50	Daphnia	11744.5 mg/L, 48 Hours
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	7.7 - 11.2 mg/L, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	> 100 mg/L, 96 hours
Glycerol (CAS 56-81-5)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	51000 - 57000 mg/L, 96 hours

Persistence/ degradability:	No data is available on the degradability of this product.
Bioaccumulative potential	
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 methods:	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations:	Dispose of in accordance with local regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
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 as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.

U.S. Department of Transportation (DOT)

DOT

UN number:	UN1993
Proper shipping name:	Flammable Liquid, n.o.s. (Ethanol)
Hazard class(es):	3
Packing group:	III
Special provisions	24, B1, IB3, T2, TP1
Packaging non bulk	203
Packaging bulk	242

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS This product is a "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)

Not Listed

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories

Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

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):

Ethanol (CAS 64-17-5) Listed

US - Illinois Chemical Safety Act: Listed substance

Ethanol (CAS 64-17-5) Listed

US - Louisiana Spill Reporting: Listed substance

Ethanol (CAS 64-17-5) Listed

US - Minnesota Haz Subs: Listed substance

Ethanol (CAS 64-17-5) Listed

Glycerol (CAS 56-81-5) Listed

US - New Jersey RTK - Substances: Listed substance

Ethanol (CAS 64-17-5) Listed

Glycerol (CAS 56-81-5) Listed

US - Texas Effects Screening Levels: Listed substance

Ethanol (CAS 64-17-5) Listed

Glycerol (CAS 56-81-5) Listed

US. Massachusetts RTK - Substance List

Ethanol (CAS 64-17-5) Listed

Glycerol (CAS 56-81-5) Listed

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

Ethanol (CAS 64-17-5) Listed

Glycerol (CAS 56-81-5) Listed

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

Ethanol (CAS 64-17-5) Listed

Glycerol (CAS 56-81-5) Listed

US. Rhode Island RTK

Ethanol (CAS 64-17-5) Listed

Glycerol (CAS 56-81-5) Listed

US. California Proposition 65

Not listed

Inventory status

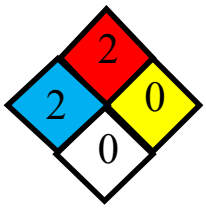
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

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

16. OTHER INFORMATION

HMIS Ratings: Health – 2 | Flammability – 2 | Reactivity – 0

NFPA Ratings:



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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 is set forth on the labeling and the SDS.

SDS preparation date:	April 5, 2021	**Replaces SDS dated:**	July 27, 2018
Version No.	6		
Changes since last revision:	Section 14 – UN#		