SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

- Trade name MACKAMIDE LPA FLAKE

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

Uses of the Substance / Mixture

- Cosmetics, personal care products

Remarks

- For professional and industrial installation and use only.

1.3 Details of the supplier of the safety data sheet

Company

Verdant Specialty Solutions US LLC
24601 Governors Higway, University Park
IL 60484 - United States
Tel: +1708-235-7200

1.4 Emergency telephone

+1 703-741-5970 [Chemtrec]
+1 (800) 424-9300 CHEMTREC ® (USA & Canada)

SECTION 2: Hazards identification

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

2.1 Classification of the substance or mixture

HCS 2012 (29 CFR 1910.1200)

Skin irritation, Category 2	H315: Causes skin irritation.
Serious eye damage, Category 1	H318: Causes serious eye damage.

2.2 Label elements

HCS 2012 (29 CFR 1910.1200)

Pictogram

Signal Word

- Danger

Hazard Statements

- H315	Causes skin irritation.
- H318	Causes serious eye damage.

Precautionary Statements

Prevention

- P264 Wash skin thoroughly after handling.
- P280 Wear eye protection/ face protection.
- P280 Wear protective gloves.

Response

- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER/ doctor.
- P332 + P313 If skin irritation occurs: Get medical advice/ attention.
- P362 Take off contaminated clothing and wash before reuse.

2.3 Other hazards which do not result in classification

- H401: Toxic to aquatic life.
- H412: Harmful to aquatic life with long lasting effects.

- This product as shipped is not a combustible dust, however if small particles are generated during further processing, handling or by other means, combustible dust concentrations may form in the air.

SECTION 3: Composition/information on ingredients

3.1 Substance

- Chemical nature Surfactant

Hazardous Ingredients and Impurities

Chemical name	Identification number CAS-No.	Concentration [%]
Dodecanamide, N-(2-hydroxypropyl)-	142-54-1	> 96
2-Propanol, 1-amino-	78-96-6	< 2

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

3.2 Mixture

- Not applicable, this product is a substance.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

- First responder needs to protect himself.
- Show this material safety data sheet to the doctor in attendance.
- Place affected apparel in a sealed bag for subsequent decontamination.
- When symptoms persist or in all cases of doubt seek medical advice.

In case of inhalation

- Move to fresh air.
- Keep at rest.
- Consult a physician if necessary.

In case of skin contact

- Take off contaminated clothing and shoes immediately.
- Wash off immediately with soap and plenty of water.
- Use a mild soap if available.

- If skin irritation occurs, seek medical advice/attention.

In case of eye contact

- Rinse immediately with plenty of water, also under the eyelids.
- Take victim immediately to hospital.
- Continue rinsing eyes during transport to hospital.

In case of ingestion

- Do not induce vomiting without medical advice.
- Rinse mouth with water.
- Do not give anything to drink.
- Keep at rest.
- Consult a physician if necessary.

4.2 Most important symptoms and effects, both acute and delayed

- no data available

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

SECTION 5: Firefighting measures

Flash point	>212 °F (100 °C) does not flash, According to the available data on the constituents, Structure-activity relationship (SAR) Flammability class: Will burn
Autoignition temperature	No data available
Flammability / Explosive limit	No data available

5.1 Extinguishing media

Suitable extinguishing media

- Extinguishing media - small fires
- Multipurpose powders

- Extinguishing media - large fires
- Alcohol Resistant Aqueous Film Forming Foam (AR-AFFF)

Unsuitable extinguishing media

- High pressure inert gas, e.g. carbon dioxide jet.
- (Avoid dispersal of dust in the air)

- Water may be ineffective.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting

- The pressure in sealed containers can increase under the influence of heat.
- Combustible. However, does not present any particular risk in the event of a fire.
- Hazardous decomposition products formed under fire conditions.
- High concentrations of toxic or harmful products may remain in the residual liquid once the fire has been extinguished.

Hazardous combustion products:

- Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
- Nitrogen oxides (NOx)

5.3 Advice for firefighters

Special protective equipment for fire-fighters

- Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.
- Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Specific fire fighting methods

- Stay upwind.
- Fight fire with normal precautions from a reasonable distance.
- Use appropriate means for fighting adjacent fires.
- Cool down the containers / equipment exposed to heat with a water spray. Ensure that there is NO direct contact between the water and the product.

Further information

- Evacuate personnel to safe areas.
- If this product is on fire, do not use water to extinguish.
- Intervention only by capable personnel who are trained and aware of the hazards of the product.
- Never approach containers which have been exposed to fire, without cooling them sufficiently.
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Avoid inhalation, ingestion and contact with skin and eyes.
- Wear chemical resistant personal protective equipment
- Wear suitable gloves.
- Wear suitable protective clothing.
- Wear as appropriate:
- Face-shield
- Tightly fitting safety goggles
- In the case of dust or aerosol formation use respirator with an approved filter.

- In the case of vapor formation use a respirator with an approved filter.

- Stop leak if safe to do so.

- If spillage occurs on the public highway, indicate the danger and notify the authorities (police, fire service).

- For further information refer to section 8 "Exposure controls / personal protection."

6.2 Environmental precautions

- This material is a low melting point solid

- Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.

- Prevent further leakage or spillage if safe to do so.
- Contain the spilled material by diking.
- The product should not be allowed to enter drains, water courses or the soil.

- Local authorities should be advised if significant spillages cannot be contained.
- If the product contaminates rivers and lakes or drains inform respective authorities.
- If the spill area is porous, the contaminated material must be collected for subsequent treatment or disposal.

- Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies

6.3 Methods and materials for containment and cleaning up

- This material is a low melting point solid

- No sparking tools should be used.
- Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

- Stop leak if safe to do so.
- Dam up with sand or inert earth (do not use combustible materials).

- Shovel or sweep up.
- Keep in suitable, closed containers for disposal.
- Never return spills in original containers for re-use.

- Molten form
- Allow to solidify.

- Wash with plenty of water and detergent.
- Clean contaminated surface thoroughly.
- Recover the cleaning water for subsequent disposal.
- Decontaminate tools, equipment and personal protective equipment in a segregated area.

- Dispose of as hazardous waste in compliance with local and national regulations.

Additional advice

- No conditions to be specially mentioned.

6.4 Reference to other sections

- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 13. DISPOSAL CONSIDERATIONS

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Handle in accordance with good industrial hygiene and safety practice.
- Avoid inhalation of vapor or mist.
- Avoid contact with the skin and the eyes.
- Do NOT handle without gloves.
- Wear protective gloves/ protective clothing/ eye protection/ face protection.
- Provide adequate ventilation.

- If it is handled as a liquid, there is significant hazard of 1st, 2nd and 3rd degree burns

- Handle in accordance with good industrial hygiene and safety practice.

- Provide sufficient air exchange and/or exhaust in work rooms.
- Vapor extraction at source
- Do not use in areas without adequate ventilation.
- Do NOT handle in a confined space.
- Extracted air must not be allowed to return to the workplace.

- Wear personal protective equipment.
- Wear suitable protective clothing.

- Avoid inhalation, ingestion and contact with skin and eyes.

- Handling molten product:
- Avoid splashes.
- Avoid formation of aerosol.

- If it is handled as a liquid, there is significant hazard of 1st, 2nd and 3rd degree burns

- Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.
- Provide for appropriate exhaust ventilation and dust collection at machinery.
- Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

- For personal protection see section 8.

Hygiene measures

- Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:
- 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- 3) Wash exposed skin promptly to remove accidental splashes or contact with material.

- The user is responsible for monitoring the working environment in accordance with local laws and regulations.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

- Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.

- Keep container tightly closed.
- Keep in a dry, cool and well-ventilated place.

- Keep away from heat and sources of ignition.
- Keep away from open flames, hot surfaces and sources of ignition.
- Keep away from incompatible materials to be indicated by the manufacturer

- Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.

- Keep in a contained area
- The floor of the storage area should be impermeable and designed to form a water-tight basin.

- Keep containers tightly closed in a dry, cool and well-ventilated place.
- Keep away from open flames, hot surfaces and sources of ignition.
- Keep away from incompatible materials to be indicated by the manufacturer

- Keep away from: Do not mix with incompatible materials (See list, section 10)., Hazardous reactions may occur on contact with certain chemicals. (Refer to the list of incompatible materials section 10: "Stability-Reactivity").

Packaging material

Suitable material
- Plastic materials.
- Coated metals.

- Fiber drum
- Plastic materials.
- Coated metals.

Unsuitable material
- Uncoated metals

Remarks
- Store in original container.

Requirements for storage rooms and vessels

Recommended storage temperature: < 86 °F (< 30 °C)

7.3 Specific end use(s)

- no data available

SECTION 8: Exposure controls/personal protection

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters

Components with workplace occupational exposure limits

Components	Value type	Value	Basis
Particulates not otherwise regulated	PEL	15 mg/m3	Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants
	Form of exposure : Total dust		
Particulates not otherwise regulated	PEL	5 mg/m3	Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants
	Form of exposure : Respirable fraction		
Particles (insoluble or poorly soluble) not otherwise specified	TWA	10 mg/m3	American Conference of Governmental Industrial Hygienists
	Form of exposure : Inhalable particulate matter		
Particles (insoluble or poorly soluble) not otherwise specified	TWA	3 mg/m3	American Conference of Governmental Industrial Hygienists
	Form of exposure : Respirable particulate matter		

8.2 Exposure controls

Control measures

Engineering measures

- Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures :
- Effective exhaust ventilation system
- Ensure adequate ventilation.
- Extract at emission point.
- Ensure that extracted air cannot be returned to the workplace through the ventilation system.
- Handling molten product:
- Avoid splashes.
- Avoid formation of aerosol.
- Facilities and equipment easily cleanable.
- Dust must be extracted directly at the point of origin.
- Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).
- Avoid dust formation.

Individual protection measures

Respiratory protection

- Recommended Filter type: Organic vapor Type
- This should be achieved by a good general extraction and -if practically feasible- by the use of a local exhaust ventilation.
- When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.
- Respirator must be worn if exposed to dust.

Hand protection

- Where there is a risk of contact with hands, use appropriate gloves
- Gloves must be inspected prior to use.
- Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Suitable material

- PVC
- Nitrile rubber
- Neoprene

Eye protection

- Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.
- Eye contact should be prevented through the use of:
- Tightly fitting safety goggles
- Face-shield
- Handling molten product:
- Face-shield

Skin and body protection

- Full protective suit
- Footwear protecting against chemicals
- Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

- Personal hygiene is an important work practice exposure control measure and the following general measures

should be taken when working with or handling this materials:

- 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- 3) Wash exposed skin promptly to remove accidental splashes or contact with material.
- The user is responsible for monitoring the working environment in accordance with local laws and regulations.

Protective measures

- Emergency equipment immediately accessible, with instructions for use.
- Ensure that eyewash stations and safety showers are close to the workstation location.
- Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards, and/or risks that may occur during use.
- The protective equipment must be selected in accordance with current local regulations and in cooperation with the supplier of the protective equipment.

SECTION 9: Physical and chemical properties

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

9.1 Information on basic physical and chemical properties

Physical state	solid (68 °F (20 °C))
Form	Wax., pellets, flakes
Color	off-white to tan
Odor	amine-like
Odor Threshold	No data available
Melting point/freezing point	Melting point/range: 126 - 135 °F (52 - 57 °C)
Initial boiling point and boiling range	Boiling point/boiling range: > 302 °F (> 150 °C) (760 mmHg (1,013.25 hPa))
Flammability (solid, gas)	No data available
Flammability (liquids)	No data available
Flammability / Explosive limit	No data available
Flash point	> 212 °F (100 °C) does not flash, According to the available data on the constituents, Structure-activity relationship (SAR) Flammability class: Will burn
Autoignition temperature	No data available
Decomposition temperature	No data available
pH	8.0 - 11.0 (1 % (m/v)) Aqueous solution
Viscosity	No data available
Solubility	Water solubility: dispersible

Partition coefficient: n-octanol/water	No data available
Vapor pressure	< 0.1 mmHg (< 0.13 hPa) (77 °F (25 °C))
Density	estimated 0.92 g/cm3 (68 °F (20 °C)) Information taken from reference works and the literature. Bulk density: 0.6 kg/dm3 (77 °F (25 °C))
Relative density	No data available
Relative vapor density	No data available
Particle characteristics	No data available
Evaporation rate (Butylacetate = 1)	< 1

9.2 Other information

Oxidizing properties	Not considered as oxidizing., Structure-activity relationship (SAR)

SECTION 10: Stability and reactivity

10.1 Reactivity

- Stable at normal ambient temperature and pressure.

10.2 Chemical stability

- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

- No dangerous reaction known under conditions of normal use.
- Hazardous polymerization does not occur.

10.4 Conditions to avoid

- Keep away from open flames, hot surfaces and sources of ignition.
- Avoid excessive heat for prolonged periods of time.

10.5 Incompatible materials

- Strong oxidizing agents
- Strong acids

10.6 Hazardous decomposition products

- On combustion or on thermal decomposition (pyrolysis), releases:
- Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
- Nitrogen oxides (NOx)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

Dodecanamide, N-(2-hydroxypropyl)-	By analogy Rat , male and female Method: OECD Test Guideline 401 Not classified as hazardous for acute oral toxicity according to GHS. Unpublished reports

Acute inhalation toxicity — No data available

Acute dermal toxicity

Dodecanamide, N-(2-hydroxypropyl)-	By analogy Rat Rabbit Method: OECD Test Guideline 402 Not classified as hazardous for acute dermal toxicity according to GHS. Unpublished reports

Acute toxicity (other routes of administration) — No data available

Skin corrosion/irritation

Dodecanamide, N-(2-hydroxypropyl)-	By analogy Irritating to skin. Unpublished reports

Serious eye damage/eye irritation

Dodecanamide, N-(2-hydroxypropyl)-	By analogy Risk of serious damage to eyes. Unpublished reports

Respiratory or skin sensitization

Dodecanamide, N-(2-hydroxypropyl)-	By analogy Guinea pig Does not cause skin sensitization. Method: OECD Test Guideline 406 Unpublished reports

Mutagenicity

Genotoxicity in vitro

Dodecanamide, N-(2-hydroxypropyl)-	By analogy Ames test with and without metabolic activation negative By analogy

	Chromosome aberration test in vitro Strain: Human lymphocytes with and without metabolic activation negative Unpublished reports By analogy In vitro gene mutation study in mammalian cells with and without metabolic activation negative Unpublished reports
Genotoxicity in vivo	No data available

Carcinogenicity

Dodecanamide, N-(2-hydroxypropyl)-	Rat Dermal No carcinogenic effects have been observed Information given is based on data obtained from similar substances. Unpublished reports Mouse Dermal No carcinogenic effects have been observed Information given is based on data obtained from similar substances. Unpublished reports

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

NTP
IARC
OSHA
ACGIH
NTP
IARC
OSHA

Toxicity for reproduction and development

Toxicity to reproduction / fertility	No data available
Developmental Toxicity/Teratogenicity	
Dodecanamide, N-(2-hydroxypropyl)-	Rat, female, Oral Method: OECD Test Guideline 414 no embryotoxic or teratogenic effects have been observed, Information given is based on data obtained from similar substances., Unpublished reports

STOT

STOT-single exposure	
Dodecanamide, N-(2-hydroxypropyl)-	The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria. internal evaluation
STOT-repeated exposure	
Dodecanamide, N-(2-hydroxypropyl)-	The substance or mixture is not classified as specific target organ toxicant, repeated exposure according to GHS criteria. internal evaluation
Dodecanamide, N-(2-hydroxypropyl)-	Oral - Rat

Dermal - Rat

Dermal - Mouse

Not considered to cause serious damage to health on repeated exposure
Subchronic toxicity
Information given is based on data obtained from similar substances.
Unpublished reports

Experience with human exposure No data available
Aspiration toxicity No data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic Compartment

Acute toxicity to fish

Dodecanamide, N-(2-hydroxypropyl)- By analogy

Method: Estimation method / Structure-activity relationship (SAR)
Toxic to fish.
Information given is based on data obtained from similar substances.
Unpublished reports

Acute toxicity to daphnia and other aquatic invertebrates

Dodecanamide, N-(2-hydroxypropyl)- By analogy

EC50 - 48 h : - Daphnia magna (Water flea)
Method: OECD Test Guideline 202
Toxic to aquatic invertebrates.
Freshwater species
Information given is based on data obtained from similar substances.
Unpublished reports

Toxicity to aquatic plants

Dodecanamide, N-(2-hydroxypropyl)- By analogy

- 72 h : - Pseudokirchneriella subcapitata (green algae)
Endpoint: Growth rate
Method: OECD Test Guideline 201
Harmful to algae.
Freshwater species
Information given is based on data obtained from similar substances.
Unpublished reports

By analogy

- 72 h : - Pseudokirchneriella subcapitata (green algae)
static test
Endpoint: Growth rate
Method: OECD Test Guideline 201
No adverse chronic effect observed up to and including the threshold of 1 mg / L.
Freshwater species
Information given is based on data obtained from similar substances.
Unpublished reports

Toxicity to microorganisms No data available

Chronic toxicity to fish

Dodecanamide, N-(2-hydroxypropyl)- By analogy

- 28 Days - Oncorhynchus mykiss (rainbow trout)
Endpoint: mortality
Method: OECD Test Guideline 204
Harmful to fish with long lasting effects.
Freshwater species
Information given is based on data obtained from similar substances.
Unpublished reports

Chronic toxicity to daphnia and other aquatic invertebrates

Dodecanamide, N-(2-hydroxypropyl)- By analogy

- 21 d - Daphnia magna (Water flea)
Endpoint: Reproduction Test
Method: OECD Test Guideline 211
Toxic to aquatic invertebrates with long lasting effects.
Fresh water
Unpublished reports

12.2 Persistence and degradability

Abiotic degradation No data available

Physical- and photo-chemical elimination No data available

Biodegradation

Biodegradability

Dodecanamide, N-(2-hydroxypropyl)- By analogy

Ultimate aerobic biodegradability
- 28 Days
The substance fulfills the criteria for ultimate aerobic biodegradability and ready biodegradability
Expert judgment
Information given is based on data obtained from similar substances.
Unpublished reports

Degradability assessment

Dodecanamide, N-(2-hydroxypropyl)- The product is considered to be rapidly degradable in the environment

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water

Dodecanamide, N-(2-hydroxypropyl)- Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Bioconcentration factor (BCF) No data available

12.4 Mobility in soil

Adsorption potential (Koc)	No data available
Known distribution to environmental compartments	No data available

12.5 Results of PBT and vPvB assessment

Dodecanamide, N-(2-hydroxypropyl)-	Not classified as PBT substance. Not classified as vPvB.

12.6 Other adverse effects

Ecotoxicity assessment

Short-term (acute) aquatic hazard

Dodecanamide, N-(2-hydroxypropyl)-	Toxic to aquatic life.

Long-term (chronic) aquatic hazard

Dodecanamide, N-(2-hydroxypropyl)-	Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal

Prohibition

- Do not discharge directly into the environment.
- Do not dispose of with domestic refuse.

- Dispose of as hazardous waste in compliance with local and national regulations.

- Chemical additions, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

Waste Code

- Environmental Protection Agency
- Hazardous Waste – NO

Advice on cleaning and disposal of packaging

Prohibition

- Do NOT dispose of untreated packaging with industrial waste.
- Do not dispose of with domestic refuse.

- Empty remaining contents.

- Clean using steam.
- Clean with the help of detergent. Avoid using any solvent.
- Monitor the residual vapors.
- Dispose of rinse water in accordance with local and national regulations.

- Containers that cannot be cleaned must be treated as waste.

- Dispose of contents/ container to an approved waste disposal plant.
- Dispose of in accordance with local regulations.

- In accordance with IMDG regulations containers or tankers that have not been cleaned or deodorized and that previously contained a hazardous product, must either be labeled or have hazard signs.

- Where possible recycling is preferred to disposal or incineration.
- The recycled material must be completely dry and free of pollutants.

SECTION 14: Transport information

Transportation status: IMPORTANT! Statements below provide additional data on listed transport classification.
The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

DOT

14.1 UN number	UN 3077
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (N-(2-hydroxypropyl)dodecanamide, Dodecanoic acid, methyl ester)
14.3 Transport hazard class	9
Label(s)	9
14.4 Packing group	
Packing group	III
ERG No	171
14.5 Environmental hazards	YES
Marine pollutant	Marine Pollutant

TDG

14.1 UN number	UN 3077
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (N-(2-hydroxypropyl)dodecanamide, Dodecanoic acid, methyl ester)
14.3 Transport hazard class	9
Label(s)	9
14.4 Packing group	
Packing group	III
ERG No	171
14.5 Environmental hazards	YES
Marine pollutant	Marine Pollutant

NOM

14.1 UN number	UN 3077
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (N-(2-hydroxypropyl)dodecanamide, Dodecanoic acid, methyl ester)

14.3 Transport hazard class	9
Label(s)	9
14.4 Packing group	
Packing group	III
ERG No	171
14.5 Environmental hazards	YES
Marine pollutant	

IMDG

14.1 UN number	UN 3077
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (N-(2-hydroxypropyl)dodecanamide, Dodecanoic acid, methyl ester)
IMDG Code segregation group	Alkalis (SGG18)
14.3 Transport hazard class	9
Label(s)	9
14.4 Packing group	
Packing group	III
14.5 Environmental hazards	YES
Marine pollutant	
14.6 Special precautions for user	
EmS	F-A , S-F

For personal protection see section 8.

14.7 Transport in bulk vessels according to IMO instruments

No data available

IATA

14.1 UN number	UN 3077
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (N-(2-hydroxypropyl)dodecanamide, Dodecanoic acid, methyl ester)
14.3 Transport hazard class	9
Label(s):	9
14.4 Packing group	
Packing group	III
Packing instruction (cargo aircraft)	956
Max net qty / pkg	400.00 kg
Packing instruction (passenger aircraft)	956
Max net qty / pkg	400.00 kg
14.5 Environmental hazards	YES

14.6 Special precautions for user
For personal protection see section 8.

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information

15.1 Notification status

Inventory Information	Status
United States TSCA Inventory	- All substances listed as active on the TSCA inventory
Canadian Domestic Substances List (DSL)	- Listed on Inventory
Australian Inventory of Industrial Chemicals (AIIC)	- Listed on Inventory; we have not determined if this product contains substances with regulatory obligations and/or restrictions
Japan. CSCL - Inventory of Existing and New Chemical Substances	- Listed on Inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- Listed on Inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- Listed on Inventory
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- Listed on Inventory
Taiwan Chemical Substance Inventory (TCSI)	- Listed on Inventory
New Zealand. Inventory of Chemical Substances	- All components are listed on the NZIoC inventory. Additional HSNO obligations may apply. Please refer to Section 15 of SDS for New Zealand.

EU. European Registration, Evaluation, Authorization and Restriction of Chemical (REACH)	- When purchased from a Verdant Specialty Solutions legal entity based in the EEA ("European Economic Area"), this product is compliant with the registration provisions of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, and/or registered. When purchased from a legal entity outside of the EEA, please contact your local representative for additional information.
Korea. Act on Registration and Evaluation of Chemicals	- When purchased from a Verdant Specialty Solutions legal entity based in Korea, this product is compliant with "Act on Registration and Evaluation of Chemicals" (AREC or K-REACH, Article 10) as all its components are either excluded, exempt, and/or (pre)registered. When purchased from a legal entity outside of Korea, please contact your local representative for additional information.

15.2 Federal Regulations

US. EPA EPCRA SARA Title III

Section 313 Toxic Chemicals (40 CFR 372.65)
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Section 302 Emergency Planning Extremely Hazardous Substance Threshold Planning Quantity (40 CFR 355)
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section 302 Emergency Planning Extremely Hazardous Substance Reportable Quantity (40 CFR 355)
This material does not contain any components with a SARA 302 RQ.

Section 304 Emergency Release Notification Reportable Quantity (40 CFR 355)
This material does not contain any components with a section 304 EHS RQ.

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

This material does not contain any components with a CERCLA RQ.

15.3 State Regulations

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.
This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

SECTION 16: Other information

NFPA (National Fire Protection Association) - Classification

Health	2 moderate
Flammability	1 slight
Instability or Reactivity	0 minimal

HMIS (Hazardous Materials Identification System (Paint & Coating)) - Classification

Health	2 moderate
Flammability	1 slight
Reactivity	0 minimal
PPE	Determined by User; dependent on local conditions

Further information

- Product evaluated under the US GHS format.

Date Prepared: 10/15/2021

Key or legend to abbreviations and acronyms used in the safety data sheet

- PEL: Permissible exposure limit (PEL)
- TWA: Time weighted average
- ACGIH: American Conference of Governmental Industrial Hygienists
- OSHA: Occupational Safety and Health Administration
- NTP: National Toxicology Program
- IARC: International Agency for Research on Cancer
- NIOSH: National Institute for Occupational Safety and Health
- ADR: European Agreement on International Carriage of Dangerous Goods by Road.
- ADN: European Agreement on the International Carriage of Dangerous Goods by Inland Waterways.
- RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
- IATA: International Air Transport Association.
- ICAO-TI: Technical Specification for Safe Transport of Dangerous Goods by Air.
- IMDG: International Maritime Dangerous Goods.
- TWA: Time weighted average
- ATE: Estimated value of acute toxicity
- EC: European Community number
- CAS: Chemical Abstracts Service.
- LD50: Substance that causes 50% (half) death in the test animals group (Median Fatal Dose).
- LC50: Substance concentration causing 50% (half) death in the test animals group.
- EC50: Effective Concentration of the substance causing the maximum of 50%.
- PBT: Persistent, Bioaccumulative and Toxic substance.
- vPvB: Very Persistent and Very Bioaccumulative.
- SEA: Classification, labeling, packaging regulation
- DNEL: Derived No Effect Level
- PNEC: Predicted No Effect Concentration
- STOT: Specific Target Organ Toxicity

Not all acronyms listed above are referenced in this SDS.