SAFETY DATA SHEET



ROOTS VG 320

Section 1. Identifi	cation		
GHS product identifier	: ROOTS VG 320	Date Issued/Revised	: 1/28/16
Product code	: SFGT320	NSF	: H-2
Other means of identification	: Not available.	Registration No.	: 142381
Product type	: Liquid.		
Relevant identified uses of t	he substance or mixture and	uses advised against	
Identified uses			
Not available.			
Uses advised against		Reason	
Not available.			
Supplier's details	: Royal Purple, LLC. 1 Royal Purple Lane Porter, Texas 77365 USA Phone:281-354-8600 Eme	ergency Phone:281-354-8600	
24hr. CHEMTREC 1-800-424-9300 / International 1-703-527-3887		424-9300 / International 1-703-527-3	3887
Section 2. Hazard	s identification		
OSHA/HCS status	Standard (29 CFR 1910.1	onsidered hazardous by the OSHA H 200), this SDS contains valuable info f the product. This SDS should be re s of this product.	rmation critical to the safe
Classification of the substance or mixture	: Not classified.		
	Percentage of the mixture environment: 9.9%	consisting of ingredient(s) of unknow	n hazards to the aquatic
GHS label elements			
Signal word	: No signal word.		
Hazard statements	: No known significant effec	ts or critical hazards.	
Precautionary statements			
Prevention	: Not applicable.		
Response	: Not applicable.		
Storage	: Not applicable.		
Disposal	: Not applicable.		
Hazards not otherwise classified	: None known.		

Section 3. Composition/information on ingredients

Substance/mixture Other means of identification

: Mixture

: Not available.

CASnumber/other identifiers

CAS	num	hor
CAS	num	Dei

: Not applicable.

Ingredient name	%	CAS number
Butene, homopolymer (products derived from either/or But-1-ene/But-2-ene)	≥25 - <50	9003-29-6
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	≥3 - <5	68515-49-1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: mediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	: Fush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effe	ects
Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/symp	<u>ptoms</u>
Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.
Indication of immediate me	dical attention and special treatment needed, if necessary
Notes to physician	: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: No specific treatment.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: Do not use water jet.
Specific hazards arising from the chemical	: In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protect	ive equipment and emergency procedures
For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do no touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders	: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and materials for co	entainment and cleaning up
Small spill	: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	: Put on appropriate personal protective equipment (see Section 8).
Advice on general	: Eating, drinking and smoking should be prohibited in areas where this material is handled,
occupational hygiene	stored and processed. Workers should wash hands and face before eating, drinking and
	smoking. Remove contaminated clothing and protective equipment before entering
	eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage,	: Store in accordance with local regulations. Store in original container protected from
including any	direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials
incompatibilities	(see Section 10) and food and drink. Keep container tightly closed and sealed until
	ready for use. Containers that have been opened must be carefully resealed and kept
	upright to prevent leakage. Do not store in unlabeled containers. Use appropriate
	containment to avoid environmental contamination

Section 8. Exposure controls/personal protection

Control parameters

Occur	oational	exposure	limits

None.

Appropriate engineering controls	:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be

necessary to reduce emissions to acceptable levels.

Individual protection measures

individual protection measu	
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Skin protection	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	 Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	: Liquid.
Color	: Not available.
Odor	: Not available.
Odor threshold	: Not available.
рН	: Not available.
Melting point	: Not available.
Boiling point	: Not available.
Flash point	: Closed cup: 260°C (500°F)
Evaporation rate	: Not available.

Section 9. Physical and chemical properties

Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: Not available.
Solubility	: Not available.
Partition coefficient: n- octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Kinematic (40°C (104°F)): 3.2 cm ² /s (320 cSt)

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Butene, homopolymer (products derived from either/ or But-1-ene/But-2-ene)	LD50 Dermal	Rabbit	>10250 mg/kg	-
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	LD50 Oral LD50 Dermal	Rat Rabbit	>34600 mg/kg 16000 mg/kg	-
	LD50 Oral	Rat	>60000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	Eyes - Mild irritant	Rabbit	-	0.1 Mililiters	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Section 11. Toxicological information

Reproductive toxicity Not available.	
Teratogenicity Not available.	
Specific target organ toxicity Not available.	<u>/(single exposure)</u>
Specific target organ toxicity Not available.	<u>/(repeated exposure)</u>
Aspiration hazard Not available.	
Information on the likely routes of exposure	: Not available.
Potential acute health effects	
Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Symptoms related to the physical sectors and the sector sectors and the sector sector sectors and the sector sectors and the sector sectors are sectors and the sectors are se	sical, chemical and toxicological characteristics
Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.
	s and also chronic effects from short and long term exposure
Short term exposure Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Long term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Potential chronic health effe Not available.	<u>cts</u>
General	: No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Butene, homopolymer (products derived from either/ or But-1-ene/But-2-ene)	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Butene, homopolymer (products derived from either/ or But-1-ene/But-2-ene) 1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich		314 to 1882 0.1	high Iow

Mobility in soil

Soil/water partition	: Not available.
coefficient (Koc)	

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	ΙΑΤΑ
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not available. to Annex II of MARPOL 73/78 and the IBC Code

Section 15. Regulatory information

5		5					
U.S. Federal regulations	:	TSCA 8(a) CDR Ex	kempt/Part	ial exemptior	n: Not determin	ed	
		All components are	e listed or e	xempted.			
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	:	Not listed					
Clean Air Act Section 602 Class I Substances	:	Not listed					
Clean Air Act Section 602 Class II Substances	:	Not listed					
DEA List I Chemicals (Precursor Chemicals)	:	Not listed					
DEA List II Chemicals (Essential Chemicals)	:	Not listed					
SARA302/304							
Composition/information	on	ingredients					
No products were found.							
SARA 304 RQ	:	Not applicable.					
SARA311/312							
Classification	:	Not applicable.					
Composition/information	<u>on</u>	ingredients					
Namo		0/	Fire	Suddon	Poactivo	Immodiato	Delaved

Name	%	Fire hazard	Sudden release of pressure	Reactive	(acute) health	Delayed (chronic) health hazard
Butene, homopolymer (products derived from either/or But-1-ene/ But-2-ene)	≥25 - <50	No.	No.	No.	Yes.	No.
1,2-Benzenedicarboxylic acid, di- C9-11-branched alkyl esters, C10-rich	≥3 - <5	No.	No.	No.	Yes.	No.

State regulations

Massachusetts	: None of the components are listed.	
New York	: None of the components are listed.	
New Jersey	: None of the components are listed.	
Pennsylvania	: None of the components are listed.	

California Prop.65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive		Maximum acceptable dosage level
1,2-Benzenedicarboxylic acid, di- C9-11-branched alkyl esters, C10-rich	No.	Yes.	No.	Yes.

International lists

National inventory

- Australia
- Canada

- : All components are listed or exempted.
- : At least one component is not listed in DSL but all such components are listed in NDSL.

China

: All components are listed or exempted.

Section 15. Regulatory information

Europe	 At least one component is not listed in EINECS but all such components are listed in ELINCS. Please contact your supplier for information on the inventory status of this material.
Japan	: At least one component is not listed.
Malaysia	: Not determined.
New Zealand	· All components are listed or exempted.
Philippines	
Republic of Korea	: Not determined.
Taiwan	: All components are listed or exempted.

Section 16. Other information

Procedure used to derive the classification

Classification		Justification	
Not classified.			
<u>History</u>		L	
Date of issue/Date of revision	: 11/20/2015		
Version	: 3		
Key to abbreviations	BCF = Bioconcentration Fac GHS = Globally Harmonized IATA = International Air Tra IBC = International Air Co IMDG = International Maritin LogPow = Iogarithm of the of MARPOL 73/78 = Internatio	 ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Internediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations 	

✓ Indicates information that has changed from previously issued version.

Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.