

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name BIOACT® 105

Other means of identification

Product Code PC105
UN-No UN3295

Recommended use of the chemical and restrictions on use

Recommended Use Technical cleaning solvent.
Uses advised against FOR INDUSTRIAL USE ONLY

Details of the supplier of the safety data sheet

Manufacturer Address Vantage Specialties, Inc.
 3938 Porett Drive
 Gurnee, IL 60031 USA
 847-244-3410

Emergency Telephone Number

Company Phone Number +1-847-244-3410
Emergency Telephone Number CHEMTREC International +1-703-527-3887
 CHEMTREC USA: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 3
Aspiration toxicity	Category 1
Flammable Liquid and vapor	Category 3

Label Elements

EMERGENCY OVERVIEW

DANGER

Hazard statements

May be fatal if swallowed and enters airways
 Causes skin irritation
 Causes serious eye irritation
 May cause drowsiness or dizziness
 May cause an allergic skin reaction
 Very toxic to aquatic life with long lasting effects
 Flammable liquid and vapor



Color Colorless	Physical State Liquid	Odor Characteristic
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Precautionary Statements - Prevention

Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 Use only in a well ventilated area
 Wear eye/face protection
 Wear protective gloves
 Avoid breathing vapors or mists
 Take precautionary measures against static discharge
 Avoid release to the environment

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
 IF ON SKIN: Rinse exposed skin with plenty of water. If skin irritation occurs: get medical advice/attention.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Get medical advice/attention if you feel unwell.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting
 IN CASE OF FIRE: Use CO2, dry chemical, ABC fire extinguisher, or foam for extinction

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container in accordance with applicable regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Weight %
Isoparaffinic Hydrocarbon	64742-48-9	30 - 60
Propylene glycol propyl ether	1569-01-3	30 - 60
D-Limonene	5989-27-5	10 - 30

4. FIRST AID MEASURES

FIRST AID MEASURES

Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, call a physician.
Skin contact	IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention.
Inhalation	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
Ingestion	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. DO NOT induce vomiting.
Protection of First-aiders	Use personal protective equipment.

Most important symptoms and effects, both acute and delayed

Symptoms Irritation or pain in contact with skin or eyes. Skin irritation, allergic reaction.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

<u>Suitable extinguishing media</u>	Dry chemical. Foam. Carbon dioxide. Water. Class ABC/BC fire extinguisher.
Unsuitable extinguishing media	None identified.
<u>Specific hazards arising from the chemical</u>	Discarded towels or wipes soaked with solvent may smolder if not properly contained.
Hazardous combustion products	Carbon oxides.
<u>Explosion Data</u>	
Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	Yes.
<u>Protective equipment and precautions for firefighters</u>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Use personal protective equipment. Remove all sources of ignition. Ensure adequate ventilation. Avoid contact with skin, eyes, and clothing.
For emergency responders	Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions	Prevent release to surface water.
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Methods and material for containment and cleaning up

Methods for Containment	Dike to collect large liquid spills. Avoid release to the environment.
Methods for Cleaning Up	Absorb with inert material and transfer to containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling	Wear personal protective equipment. Avoid contact with skin, eyes, and clothing. Do not breathe vapors or spray mist. Take precautionary measures against static discharges.
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Conditions for safe storage, including any incompatibilities

Storage	Keep away from open flames, hot surfaces and sources of ignition.
Incompatible materials	Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines	Manufacturer recommended exposure limit (8-hour TWA) for CAS 64742-48-9: 171 ppm, 1200 mg/m ³ .
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Appropriate engineering controls

Engineering Measures Safety Shower
Eyewash station
Ventilation system.

Individual protection measures, such as personal protective equipment

Eye/face Protection Safety glasses with side-shields.
Skin and Body Protection Long sleeved clothing.
Respiratory Protection In case of inadequate ventilation wear respiratory protection.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Odor	Characteristic
Appearance	Clear	Odor threshold	Not determined
Color	Colorless		
Property	Values	Remarks • Method	
pH		Not Applicable	
Melting point/freezing point		Not determined	
Boiling point/boiling range	> 150 °C / > 300 °F		
Flash Point	41 °C / 105 °F	Closed cup	
Evaporation Rate		Not determined	
Flammability (solid, gas)		Flammable liquid and vapor	
Flammability Limits in Air		Published data for d-Limonene	
Upper flammability limits	6.1%		
Lower Flammability Limit	0.7%		
Vapor pressure	1.5	mm Hg	
Vapor Density	>1	(air = 1)	
Specific Gravity	0.8		
Water Solubility	Partially soluble		
Solubility in other solvents		Not determined	
Partition coefficient		Not Applicable	
Autoignition Temperature		Not determined	
Decomposition temperature		Not determined	
Kinematic viscosity	1.6 cps	@ 25 °C	
Dynamic viscosity		Not determined	
Explosive Properties	None		
Oxidizing Properties	None		

Other Information

10. STABILITY AND REACTIVITY

Reactivity Not reactive
Remarks

Chemical stability Stable under recommended storage conditions.

Possibility of Hazardous Reactions

Hazardous Reactions None under normal processing.
Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid Keep away from open flames, hot surfaces and sources of ignition.

Incompatible materials Strong oxidizing agents.

Hazardous Decomposition Products

None identified.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

- Inhalation** May cause drowsiness and dizziness.
- Eye contact** Irritating to eyes.
- Skin contact** Irritating to skin. May cause sensitization by skin contact.
- Ingestion** Potential for aspiration if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Isoparaffinic Hydrocarbon 64742-48-9	> 5000 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	-
Propylene glycol propyl ether 1569-01-3	= 2490 mg/kg (Rat) = 2504 mg/kg (Rat)	= 3550 mg/kg (Rabbit)	-
D-Limonene 5989-27-5	= 4400 mg/kg (Rat)	> 5 g/kg (Rabbit)	-

Information on toxicological effects

Symptoms Swelling/redness in contact with skin or eyes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

- Skin corrosion/irritation** Irritating to skin.
- Serious eye damage/eye irritation** Irritating to eyes.
- Sensitization** Repeated or prolonged contact may cause allergic reactions in very susceptible persons.
- Mutagenic Effects** No known hazard.
- Carcinogenicity** Contains no listed human carcinogens at greater than 0.1%.

- Reproductive Toxicity** No known hazard.
- Developmental Toxicity** No known hazard.
- Teratogenic** No known hazard.
- STOT - single exposure** Inhalation of vapors may cause dizziness and drowsiness.
- STOT - repeated exposure** No known hazard.
- Aspiration hazard** May be fatal if swallowed and enters airways.

Numerical measures of toxicity-Product Information Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Isoparaffinic Hydrocarbon 64742-48-9		LC50= 2200 mg/L Pimephales promelas 96 h		
D-Limonene 5989-27-5		LC50 (96h) 0.62 - 0.8 mg/L Pimephales promelas		LC50 (48h): 0.58 - 0.92 mg/l Daphnia magna

Persistence and degradability

No data available.

Bioaccumulation/Accumulation

d-Limonene BCF: 683

Mobility

Expected to partition to air.

Other Adverse Effects

None identified

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Method Dispose of in accordance with applicable regulations.

Contaminated Packaging Dispose of in accordance with applicable regulations.

US EPA Waste Number D001

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
D-Limonene 5989-27-5	Toxic

14. TRANSPORT INFORMATION

DOT

UN-No UN3295
Proper Shipping Name Hydrocarbons, Liquid, N.O.S.
Hazard Class 3
Packing Group III
Special Provisions Exempt from regulation by US DOT when shipped solely by land in containers less than 119 gallons.

TDG

UN-No UN3295
Proper Shipping Name Hydrocarbons, Liquid, N.O.S.
Hazard Class 3
Packing Group III

IATA

UN-No UN3295
Proper Shipping Name Hydrocarbons, Liquid, N.O.S.
Hazard Class 3
Packing Group III

IMDG / IMO

UN-No UN3295
Proper Shipping Name Hydrocarbons, Liquid, N.O.S.
Hazard Class 3
Packing Group III
Marine Pollutant Yes
Description d-Limonene

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	Complies
EINECS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

U.S. State Regulations

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazard 1	Flammability 2	Instability 0	Physical and Chemical Hazards n/a
<u>HMIS</u>	Health Hazard 1	Flammability 2	Physical hazards 0	Personal Precautions B

Prepared by	Product Steward
Issuing Date	17-Jul-2015
Revision Date	17-Jul-2015
Revision Note	
Reason for Revision	Update to supplier identity/logo Update to ingestion hazard response.
<u>Disclaimer</u>	

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of MSDS

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