

Revision number: 1 Revision date: 07/06/2018

1. IDENTIFICATION

Product name: Product code:

Product use: **Restrictions on use:**

Company: TCI America 9211 N. Harborgate Street Portland, OR 97203 U.S.A. Telephone: +1-800-423-8616 / +1-503-283-1681 Fax: +1-888-520-1075 / +1-503-283-1987 e-mail: sales-US@TCIchemicals.com www.TCIchemicals.com

2. HAZARD(S) IDENTIFICATION OSHA Haz Com: CFR 1910.1200: Acute Toxicity - Oral [Category 4] Acute Toxicity - Dermal [Category 4] WHMIS 2015: Acute Toxicity - Inhalation [Category 4] Signal word: Warning! Harmful if swallowed, in contact with skin or if inhaled Hazard Statement(s): Pictogram(s) or Symbol(s): Precautionary Statement(s): Avoid breathing dust, fume, mist, vapors or spray. Use only outdoors or in a well-ventilated area. Do [Prevention] not eat, drink or smoke when using this product. Wash hands and face thoroughly after handling. Wear protective gloves, protective clothing. If swallowed: Call a poison center or doctor if you feel unwell. Rinse mouth. If on skin: Wash with plenty [Response] of soap and water. Call a poison center or doctor if you feel unwell. Take off contaminated clothing and wash it before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell. Dispose of contents and container in accordance with local, regional, national regulations (e.g. US: 40 [Disposal] CFR Part 261, EU:91/156/EEC, JP: Waste Disposal and Cleaning Act, etc.). Hazards not otherwise classified: None.

COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Components:	Substance Betulinol
Percent:	>97.0%(GC)
CAS RN:	473-98-3
Molecular Weight:	442.73
Chemical Formula:	C30H50O2

[HNOC]

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Betulinol B0803

For laboratory research purposes. Not for drug or household use.

TCI AMERICA

SAFETY DATA SHEET

Emergency telephone number:

Chemical Emergencies: TCI America (8:00am - 5:00pm) PST +1-503-286-7624 Transportation Emergencies: Chemtrec 24-Hour +1-800-424-9300 (U.S.A.) +1-703-527-3887 (International) **Responsible department:** TCI America Environmental Health Safety and Security +1-503-286-7624

4. FIRST-AID MEASURES			
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Description of first aid measures	Demote vistim to fresh six and least at rest in a position comfortable for breathing. Call a DOISON		
Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.		
Skin contact:	Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation		
_	or rash occurs: Get medical advice/attention.		
Eye contact:	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. Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.		
Ingestion:			
Symptoms/effects:			
Acute:	No data available		
Delayed:	No data available		
Indication of any immediate medical atte	ention:		
Not available.			
Notes to physician: No data available			
5. FIRE-FIGHTING MEASURES			
Suitable extinguishing media:	Dry chemical, foam, water spray, carbon dioxide.		
Hazardous combustion products:	These products include: Carbon oxides		
Other specific hazards:	Closed containers may explode from heat of a fire.		
Advice for firefighters:	Wear self-contained breathing apparatus if possible.		
6. ACCIDENTAL RELEASE MEASU	RES		
Personal precautions, protective	Use personal protective equipment. Keep people away from and upwind of spill/leak. Entry to		
equipment and emergency procedures:			
Environmental precautions:	Prevent product from entering drains.		
Methods and materials for containment and cleaning up:	Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.		
7. HANDLING AND STORAGE			
Precautions for safe handling:	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent		
· · · · · · · · · · · · · · · · · · ·	dispersion of dust. Wash hands and face thoroughly after handling.		
	Use a local exhaust if dust or aerosol will be generated.		
Conditions for safe storage, including a	Avoid contact with skin, eyes and clothing.		
Storage conditions:	Keep container tightly closed. Store in a cool and dark place.		
	Store away from incompatible materials such as oxidizing agents.		
Packaging material:	Comply with laws.		
8. EXPOSURE CONTROLS / PERSC	DNAL PROTECTION		
Appropriate engineering controls:	Follow safe industrial engineering/laboratory practices when handling any chemical. Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety		
	shower and eye bath.		
Personal protective equipment			
Respiratory protection:	Dust respirator. Follow local and national regulations.		
Hand protection:	Protective gloves.		
Eye protection:	Safety glasses. A face-shield, if the situation requires.		
Skin and body protection:	Protective clothing. Protective boots, if the situation requires.		

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Form: Colour: Odour: Odor threshold: Odour threshold:	Solid Crystal - Powder White - Slightly pale yellow No data available No data available No data available					
Melting point/freezing point: Boiling point/range: Decomposition temperature: Relative density: Kinematic viscosity: Log Pow:	253°C (487°F) No data available No data available No data available No data available No data available	pH: Vapour pressure: Vapour density: Dynamic Viscosity: Evaporation rate(Butyl Acetate=1):	No data available No data available. No data available No data available No data available			
Flash point: Flammability(solid, gas):	No data available No data available	Autoignition temperature: Flammability or explosive limits: Lower: Upper:	No data available No data available No data available			
Solubility(ies): [Water] [Other solvents]	No data available No data available	opper.				
10. STABILITY AND REACTI	VITY					
Reactivity:No data availableChemical stability:Stable under proper conditions.Possibility of hazardous reactions:No special reactivity has been reported.Incompatible materials:Oxidizing agentsHazardous decomposition products:Carbon dioxide, Carbon monoxide						
11. TOXICOLOGICAL INFORMATION						
RTECS Number: OK5755000						

Acute Toxicity: orl-rat TDLo:10 mg/kg

Skin corrosion/irritation: No data available

Serious eye damage/irritation: No data available

Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Carcinogenicity: No data available

IARC: No data available

NTP:

No data available

OSHA: No data available

Reproductive toxicity: No data available

Target organ(s):

No data available

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12. ECOLOGICAL INFORMATION

Ecotoxicity:	
Fish:	No data available
Crustacea:	No data available
Algae:	No data available
Algae.	
Persistence / degradability:	No data available
Bioaccumulative potential(BCF):	No data available
Mobility in soil	
Log Pow:	No data available
Soil adsorption (Koc):	No data available
Henry's Law (PaM 3/mol):	No data available
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13. DISPOSAL CONSIDERATIONS	
Disposal of product:	Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil.
Disposal of container:	Dispose of as unused product. Do not re-use empty containers.
Other considerations:	Observe all federal, state and local regulations when disposing of the substance.
14. TRANSPORT INFORMATION	
DOT (US)	Non-hazardous for transportation.
IATA	Non-hazardous for transportation.
IMDG	Non-hazardous for transportation.

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.):

This product is NOT on the EPA Toxic Substances Control Act (TSCA) inventory. The following notices are required by 40 CFR 720.36 (C) for those products not on the inventory list:

(i) These products are supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720.0 et sec.

(ii) The health risks of these products have not been fully determined. Any information that is or becomes available will be supplied on a SDS sheet.

US Federal Regulations

CERCLA Hazardo		ce and Reportable Quantity:		
SARA 313:		Not Listed		
SARA 302:		Not Listed		
State Regulation	<u>s</u>			
State Right-to-Kr	now			
Massachuse	tts	Not Listed		
New Jersey		Not Listed		
Pennsylvania	a	Not Listed		
California Propos	sition 65:	Not Listed		
Other Information	<u>n</u>			
NFPA Rating:		HMI	S Classification:	
Health:	2	He	ealth:	2
Flammability:	0	FI	ammability:	0
Instability:	0	Pi	nysical:	0
International Inve	entories_			
EC-No:		207-475-5		

16. OTHER INFORMATION

Revision date: 07/06/2018 Revision number: 1

TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.