



# SAFETY DATA SHEET

## 1. Identification

**Product identifier**                      **BiCAT® 8**

**Other means of identification**  
**Product Code**                              1398

**Recommended use**                        Catalyst.

**Recommended restrictions**              None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Manufacturer / Supplier:**                The Shepherd Chemical Company

**Address:**                                      4900 Beech Street  
Norwood, Ohio 45212 USA

**Telephone:**                                 513-731-1110

**Fax:**    513-731-2151

**Emergency USA:**                            CHEMTREC: 800-424-9300

**Emergency International:**                CHEMTREC: 00 1 703-527-3887

**Emergency EU**                                +112

**Emergency China**                            0532-83889090

**Prepared by:**                                 Bayard Pelsor, bpelsor@shepchem.com

## 2. Hazard(s) identification

**Physical hazards**                            Not classified.

**Health hazards**                              Not classified.

**Environmental hazards**                    Hazardous to the aquatic environment, acute    Category 2  
hazard

    Hazardous to the aquatic environment,        Category 3  
    long-term hazard

**OSHA defined hazards**                    Not classified.

\*Hazards not stated here are "Not classified", "Not applicable" or "Classification not possible".

### Label elements

**Hazard symbol**                              None.

**Signal word**                                    None.

**Hazard statement**                            Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

### Precautionary statement

**Prevention**                                    Avoid release to the environment.

**Response**

**Storage**                                        Store away from incompatible materials.

**Disposal**                                        Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified (HNOC)**              None known.

**Supplemental information**                None.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Zinc neodecanoate		27253-29-8	40 - 60
Bismuth(3+) neodecanoate		34364-26-6	20-40
Neodecanoic acid		26896-20-8	10-30

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

## 4. First-aid measures

<b>Inhalation</b>	Move injured person into fresh air and keep person calm under observation. If uncomfortable: Seek hospital and take along these instructions.
<b>Skin contact</b>	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation persists after washing.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes.
<b>Ingestion</b>	Do not induce vomiting without advice from poison control center.
<b>Most important symptoms/effects, acute and delayed</b>	None known.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire. None known.
<b>Specific hazards arising from the chemical</b>	Fire may produce irritating, corrosive and/or toxic gases. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. See Section 8 of the SDS for Personal Protective Equipment. For personal protection, see section 8 of the SDS. Avoid contact with skin and eyes.
<b>Methods and materials for containment and cleaning up</b>	<p>This product is miscible in water. Prevent product from entering drains.</p> <p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.</p> <p>Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p>
<b>Environmental precautions</b>	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Avoid inhalation of vapors or mists. Keep away from heat, sparks and open flame. Avoid contact with skin and eyes. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices. Local exhaust is recommended. Wear approved safety goggles. Wear suitable protective clothing and gloves.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Store in tightly closed original container in a cool, dry well-ventilated place.

## 8. Exposure controls/personal protection

<b>Occupational exposure limits</b>	This mixture has no ingredients that have PEL, TLV, or other recommended exposure limit.
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<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Exposure guidelines</b>	This material does not have established exposure limits.
<b>Appropriate engineering controls</b>	Provide adequate ventilation and minimize the risk of inhalation of vapors and mists. Make sure to provide adequate control by applying the "COSHH Essentials" procedure.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles). Wear approved safety goggles.
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves. Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable.
<b>Other</b>	Wear appropriate clothing to prevent any possibility of skin contact.
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment. In case of inadequate ventilation use suitable respirator. Use respiratory equipment with gas filter, type A2.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

<b>Appearance</b>	Amber. Viscous liquid.
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid. Viscous.
<b>Color</b>	Amber.
<b>Odor</b>	Slight acid odor.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	-38 °F (-38.89 °C)
<b>Initial boiling point and boiling range</b>	>= 469 °F (>= 242.78 °C)
<b>Flash point</b>	>= 221.0 °F (>= 105.0 °C) Closed Cup
<b>Evaporation rate</b>	<= 1
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	0.22 mm Hg at 50 °C
<b>Vapor density</b>	>= 1 at 101.325 kPa
<b>Relative density</b>	1.1
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Negligible.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Flammability class</b>	Combustible IIIB estimated
<b>Flash point class</b>	Combustible IIIB
<b>Oxidizing properties</b>	Not oxidizing.

Loose Packing Density Not available.

## 10. Stability and reactivity

**Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.  
**Chemical stability** Stable under normal temperature conditions.  
**Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.  
**Conditions to avoid** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials. Heat, sparks, flames.  
**Incompatible materials** Acids and bases. Strong oxidizing agents.  
**Hazardous decomposition products** Carbon oxides. Metal oxides.

## 11. Toxicological information

### Information on likely routes of exposure

**Inhalation** No adverse effects due to inhalation are expected.  
**Skin contact** No adverse effects due to skin contact are expected.  
**Eye contact** None known.  
**Ingestion** None known.

**Symptoms related to the physical, chemical and toxicological characteristics** None known.

### Information on toxicological effects

**Acute toxicity** Not known.

Components	Species	Test Results
Bismuth(3+) neodecanoate (CAS 34364-26-6)		
<b>Acute</b>		
<b>Dermal</b>		
<i>Liquid</i>		
LD50	Rabbit	> 2000 mg/kg bw/day
<b>Oral</b>		
<i>Liquid</i>		
LD50	Rat	3030 mg/kg bw/day
Zinc neodecanoate (CAS 27253-29-8)		
<b>Acute</b>		
<b>Oral</b>		
LD50	Rat	> 5000 mg/kg
<b>Skin corrosion/irritation</b>	Not available.	
<b>Irritation Corrosion - Skin</b>		
Bismuth(3+) neodecanoate	OECD 404	Result: not irritating
<b>Serious eye damage/eye irritation</b>		
<b>Irritation Corrosion - Eye</b>		
Bismuth(3+) neodecanoate	OECD 405	Result: not irritating
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.	
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.	
<b>Skin sensitization</b>		
Bismuth(3+) neodecanoate	Result: not a skin sensitizer	
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Mutagenicity</b>		
Bismuth(3+) neodecanoate	Result: non-mutagenic	

**Carcinogenicity** Not classifiable as to carcinogenicity to humans.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)**

Not regulated.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not listed.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** None known.

## 12. Ecological information

**Ecotoxicity** Toxic to aquatic life. Harmful to aquatic life with long lasting effects. The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**Persistence and degradability** The product is not expected to be biodegradable.

**Bioaccumulative potential** No data available on bioaccumulation.

**Mobility in soil** No data available.

**Other adverse effects** None known.

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations. Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

**Local disposal regulations** Dispose in accordance with all applicable 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. Since emptied containers retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

**DOT**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

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

## 15. Regulatory information

**US federal regulations** This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Toxic Substances Control Act (TSCA)** One or more components of the mixture are not on the TSCA 8(b) inventory or are designated "inactive".

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)****SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Zinc compounds N982	27253-29-8	40 - 60

**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.

**Safe Drinking Water Act (SDWA)** Not regulated.**US state regulations****California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

<b>Issue date</b>	05-14-2014
<b>Revision date</b>	11-13-2019
<b>Version #</b>	09
<b>Further information</b>	None known.

**Disclaimer**

The Shepherd Chemical Company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

**Revision information**

This document has undergone significant changes and should be reviewed in its entirety.