SAFETY DATA SHEET

LANXESS
Energizing Chemistry

Section 1. Identification

Product identifier : Biochek® 8071

Material Number : 57187771

Identified uses : Plasticizing agent.

Supplier/Manufacturer : LANXESS Corporation
Product Safety & Regulatory Affairs
111 RIDC Park West Drive
Pittsburgh, PA 15275-1112
USA

For information: US/Canada (800) LANXESS
International +1 412 809 1000

In case of emergency : Chemtrec (800) 424-9300
International (703) 527-3887
Lanxess Emergency Phone (800) 410-3063.

Section 2. Hazards identification

HAZCOM Standard Status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), the SDS contains valuable information critical to the safe handling and proper use of the product. The SDS should be retained and available for employees and other users of this product.

Physical state : Solid.

Color : white to beige [Light]

Classification of the substance or mixture : Not classified.

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Hazard Not Otherwise Classified (HNOC) : None known.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Supplemental label elements : Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

The following potentially hazardous ingredient(s) are used to formulate this product. As supplied, the ingredient(s) are bound in a polymer matrix. Because they are bound in the matrix, they are not expected to create any unusual hazards when handled and processed. according to good manufacturing and industrial hygiene practices and the guidelines provided by this SDS.

Ingredient name	%	CAS number
Thiabendazole Carbamic acid, butyl-, 3-iodo-2-propynyl ester	5 - 10% 1 - 3%	148-79-8 55406-53-6

Section 3. Composition/information on ingredients

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 and hence require reporting in this section.

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

Section 4. First aid measures

Description of first aid measures

Eye contact : Immediately 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 : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Get medical attention if thermal burns 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.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : Contact with hot material will cause thermal burns.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : Reddening, itching, swelling, burning and possible permanent damage.

Ingestion : No specific data.

Potential chronic health effects

No known significant effects or critical hazards.

Notes to physician : Treat symptomatically. No specific treatment.

Protection of first-aiders : No special measures required.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire. In case of fire, use water spray (fog), foam or dry chemical.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

Section 5. Fire-fighting measures

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
halogenated compounds

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, protective equipment and emergency procedures : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

Environmental precautions : No special measures required.

Methods and materials for containment and cleaning up : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. If molten, allow material to cool and place into an appropriate marked container for disposal. Prevent entry into sewers, water courses, basements or confined areas.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Remove contaminated clothing and protective equipment before entering eating areas. Workers should wash hands and face before eating, drinking and smoking. Put on appropriate personal protection equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

Conditions for safe storage : Do not store above the following temperature: 40°C (104°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (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. Empty containers or liners may retain some product residues.

Section 8. Exposure controls/personal protection

Occupational exposure limits

No exposure limit value known.

Appropriate engineering controls : Thermal processing operations should be ventilated to control gases and fumes given off during processing.

Personal protection

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.

Respiratory protection : Dust-protection mask if there is a risk of dust formation.

Skin protection : Chemical-resistant gloves.

Section 8. Exposure controls/personal protection

Eye/face protection : safety glasses with side-shields

Medical Surveillance : Not available.

Section 9. Physical and chemical properties

Physical state : Solid. [Granular solid.]

Color : white to beige [Light]

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Boiling point : Not available.

Melting point : 25 to 90°C (77 to 194°F)

Flash point : Not available.

Evaporation rate : Not available.

Explosion limits : Not available.

Vapor pressure : not available

Specific gravity (Relative density) : Not available.

Solubility : Insoluble in the following materials: cold water

Partition coefficient: n-octanol/water : Not available.

Vapor density : Not available.

Viscosity : Not available.

Combustibility at 20 °C : BZ 3 = local burning or glowing with, at the most, only slight spreading (VDI 2263).

Combustibility at 100 °C : BZ 2 = brief ignition and rapid extinction (VDI 2263).

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not available.

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 the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : Contact with hot material will cause thermal burns.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : Reddening, itching, swelling, burning and possible permanent damage.

Section 11. Toxicological information

Ingestion : No specific data.

Potential chronic health effects

Short term exposure

Potential immediate effects : Not available.

Long term exposure

Potential delayed effects : Not available.

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.

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure	Test
Thiabendazole Carbamic acid, butyl-, 3-iodo-2-propynyl ester	LD50 Oral LD50 Oral LD50 Oral	Rat - Male Rat - Female Rat	5070 mg/kg 4734 mg/kg 300 to 500 mg/kg	- - -	- - -
Thiabendazole Carbamic acid, butyl-, 3-iodo-2-propynyl ester	LD50 Dermal LD50 Dermal	Rat Rat	>5000 mg/kg >2000 mg/kg	- -	- -
Thiabendazole	LC50 Inhalation Dusts and mists	Rat	>6840 mg/m³	4 hours	-

Conclusion/Summary : 3-iodoprop-2-ynyl butylcarbamate : Harmful by inhalation.

Irritation/Corrosion

Conclusion/Summary

Skin : Thiabendazole:Non-irritating (Rabbit)
Carbamic acid, butyl-, 3-iodo-2-propynyl ester:Non-irritating

Eyes : 3-iodoprop-2-ynyl butylcarbamate : Risk of serious damage to eyes.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
Thiabendazole Carbamic acid, butyl-, 3-iodo-2-propynyl ester	skin skin	Guinea pig Guinea pig	Not sensitizing Sensitizing

Conclusion/Summary

Skin : 3-iodoprop-2-ynyl butylcarbamate : Sensitizing to the skin in an animal study.

Chronic toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Carbamic acid, butyl-, 3-iodo-2-propynyl ester	Chronic NOAEL Oral	Rat	20 mg/kg/d	2 years

Carcinogenicity

Section 11. Toxicological information

Product/ingredient name	CAS #	IARC	NTP	OSHA
Thiabendazole	148-79-8	Not classified.	Not classified.	Not classified.
Carbamic acid, butyl-, 3-iodo-2-propynyl ester	55406-53-6	Not classified.	Not classified.	Not classified.

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Thiabendazole	Negative - Oral	Rabbit	150 mg/kg NOAEL	-

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Carbamic acid, butyl-, 3-iodo-2-propynyl ester	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Thiabendazole	Category 1 Category 2	Oral Oral	liver thyroid

Acute toxicity estimates

Route	ATE value (Acute Toxicity Estimates)
Not available.	

Section 12. Ecological information

Toxicity

Product/ingredient name	Test	Result	Species	Exposure
Thiabendazole	-	Acute EC50 0.81 mg/l	Daphnia - Daphnia magna	48 hours
	-	Acute IC50 8.99 mg/l	Algae - Selenastrum capricornutum	96 hours
	-	Acute LC50 0.55 mg/l	Fish - Salmo gairdneri	96 hours
Carbamic acid, butyl-, 3-iodo-2-propynyl ester	-	Acute EC50 44 mg/l	Bacteria - Activated sludge	3 hours
	-	Acute EC50 0.21 mg/l	Daphnia - Daphnia magna	48 hours
	-	Acute IC50 0.026 mg/l	Algae - Desmodesmus subspicatus	72 hours
	-	Acute LC50 0.43 mg/l	Fish - Danio rerio	96 hours

Conclusion/Summary : Not available.

Persistence and degradability

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Thiabendazole	-	-	Not readily
Carbamic acid, butyl-, 3-iodo-2-propynyl ester	-	-	Readily

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Thiabendazole	2.4	97	low
Carbamic acid, butyl-, 3-iodo-2-propynyl ester	2.8	-	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

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. 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. Waste disposal should be in accordance with existing federal state, provincial and or local environmental controls laws.

RCRA classification : : If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	-	-	-	-		Not regulated.
IMDG Class	-	-	-	-		Not regulated.
IATA-DGR Class	-	-	-	-		Not regulated.

PG* : Packing group

RQ : 0 lbs

Section 15. Regulatory information

SARA 311/312 : Not applicable.

SARA Title III Section 302 Extremely Hazardous Substances : None

SARA Title III Section 313 Toxic Chemicals :

Ingredient name	CAS number	Concentration (%)
Thiabendazole	148-79-8	5 - 10%
Carbamic acid, butyl-, 3-iodo-2-propynyl ester	55406-53-6	1 - 3%

US EPA CERCLA Hazardous Subtances (40 CFR 302) : None

State regulations

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections on the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropraite agency in your state.

Ingredient name	CAS number	State Code	Concentration (%)

Section 15. Regulatory information

Thiabendazole	148-79-8	NJ - HS	5 - 10%
Carbamic acid, butyl-, 3-iodo-2-propynyl ester	55406-53-6	NJ - HS	1 - 3%
Ethylene Vinyl Acetate Copolymer	24937-78-8		89 - 95%

Massachusetts Substances: MA - S
Massachusetts Extraordinary Hazardous Substances: MA - Extra HS
New Jersey Hazardous Substances: NJ - HS
Pennsylvania RTK Hazardous Substances: PA - RTK HS
Pennsylvania Special Hazardous Substances: PA - Special HS

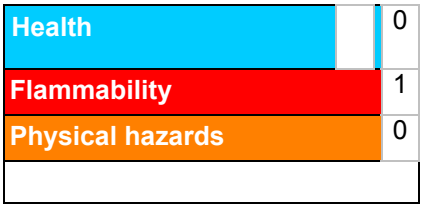
California Prop. 65

To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

U.S. Toxic Substances Control Act : Listed on the TSCA Inventory.

Section 16. Other information

Hazardous Material Information System :



0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme
***=Chronic**

The customer is responsible for determining the PPE code for this material. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

National Fire Protection Association (U.S.A.) :

0= Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

LANXESS' method of hazard communication is comprised of Product Labels and Safety Data Sheets. HMIS and NFPA ratings are provided by LANXESS as a customer service.

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Product Safety and Regulatory Affairs

Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of LANXESS Corporation. The information in this SDS relates only to the specific material designated herein. LANXESS Corporation assumes no legal responsibility for use of or reliance upon the information in this SDS.