

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product name: BIO-DEK™ Bio-Flex, Part B
Product code: Bio-Flex, Part B
Synonym(s): Bio-renewable amine curing agent

1.2 Relevant identified uses of the substance or mixture and uses advised against

General use: Hardener for epoxy coatings
Uses advised against: None specified

1.3 Details of the supplier and of the safety data sheet

Manufacturer/Distributor
BIO-DEK™, LLC
2827 Andrew Ave
Pascagoula, MS 39567 USA
+1-228-205-3255

1.4 Emergency telephone number

CHEMTREC: +1-800-424-9300 - 24 HR EMERGENCY

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

Product definition: Mixture

Classification in accordance with 29 CFR 1910 (OSHA HCS) and Regulation EC No. 1272/2008

Acute Toxicity, Oral - Category 4 [H302]
Skin Damage - Category 1C [H314]
Sensitizer, Skin - Category 1 [H317]
Sensitizer, Respiratory - Category 1 [H334]
Specific Target Organ Toxicity, Single Exposure - Category 3 (STOT SE3) [H335]
Specific Target Organ Toxicity, Single Exposure - Category 3 (STOT SE3) [H336]
Reproductive Toxicity - Category 2 [H361]
Single Target Organ Toxicity, Repeated Exposure - Category 1; STOT RE 1 [H372]
Aquatic Toxicity, Chronic - Category 3 [H412]

2.2 Label elements

Hazard symbol(s):



GHS05



GHS07



GHS08

Signal word:

Danger

Hazard statement(s):

H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H361 - Suspected of damaging fertility or the unborn child
H372 - Causes damage to the central nervous system through prolonged and repeated exposure
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements

[Prevention]

P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe mist or vapor.
P264 - Wash hands and other exposed skin areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing and eye protection.

[Response]

P301 + P330 + P331 + P310 - IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Immediately call a POISON CENTER or doctor.
P303 + P361 + P353 - IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water or shower.

P304 + P340 + P310 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor.

P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON Center or doctor.

P308 + P313 - If exposed or concerned: Get medical attention.

P321 - Specific treatment: Call a POISON CENTER or doctor. Refer to Section 4 of this SDS.

P333 + P313 - If skin irritation or rash occurs: Get medical attention.

P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

P362 - Take off contaminated clothing and wash before reuse.

P405 + P403 + P233 - Store locked up in a well-ventilated place. Keep container tightly closed.

P501 - Dispose of contents and containers in accordance with national and local regulations.

[Storage]
[Disposal]

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None as defined under 29 CFR 1900.1200.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

% by Weight	Ingredient	CAS Number	EC Number	Index Number	GHS Classification
< 90	Phenalkamine	Proprietary	-----	-----	H302, H312, H318, H411
< 30	Cycloaliphatic amine	Proprietary	-----	-----	H302, H312, H318, H411
< 15	Aromatic alcohol	Proprietary	-----	-----	-----
< 15	Alkyl phenol	Proprietary	-----	-----	-----
< 2	Organic acid	Proprietary	-----	-----	-----
< 2	Ethylenediamine	107-15-3	203-468-6	612-006-00-6	H226, H302, H311, H314, H317, H332, H334, H412

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with the applicable provisions of paragraph (i).

There are no additional ingredients present in this product 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

SECTION 4 - FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: If product mist or vapor causes respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If unconscious, maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If symptoms persist or if the victim feels unwell, seek medical attention.

Eyes: Immediately flush eyes with large amounts of water or saline solution for at least 15 minutes, occasionally lifting the upper and lower lids. Remove contact lenses, if present and easy to do, after first 2 minutes and continue rinsing. Seek immediate medical attention, preferably from an ophthalmologist.

Skin: Flush skin with large amounts of water while removing contaminated clothing. Wash the affected area with soap and water followed by thorough rinsing. Wash contaminated clothing and shoes before reuse. Discard items that cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Seek immediate medical attention for chemical burns. If irritation persists, rash develops or the victim feels unwell, seek medical attention.

Ingestion: Rinse mouth with water if the victim is conscious. Remove dentures if present. Give 1 - 2 glasses of water to drink if the victim is conscious, alert and able to swallow. Vomiting may occur spontaneously. To prevent aspiration of material into the lungs, lay the victim on one side with the head lower than the waist. Never give anything by mouth to an unconscious or convulsing person. Do not leave the victim unattended. Seek immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Potential health symptoms and effects

Eyes: Causes severe eye irritation and serious eye damage. Symptoms include redness, swelling, pain, burns, tearing and blurred vision. Prolonged contact with eye can cause conjunctivitis and corneal injury. Vapor or fumes can cause eye irritation.

Skin: Harmful in contact with skin. Causes severe skin irritation and burns. Prolonged contact with unprotected skin can cause localized redness, itching, burns and pain/discomfort. May cause an allergic skin reaction with subsequent sensitization. Persons previously sensitized can experience allergic skin reactions with symptoms of redness, itching, swelling and rash upon re-exposure to material.

Inhalation: Harmful if inhaled. This material is extremely destructive to tissue of the mucous membranes and upper respiratory tract. Vapor can cause respiratory irritation with headache, nausea, runny nose, cough, sore throat, nasal congestion, sneezing, wheezing, laryngitis, burning

sensation, shortness of breath and reduced pulmonary function. May cause inflammation and edema of the larynx and bronchi, spasm and pneumonitis. May cause delayed pulmonary edema. May cause allergy or asthma symptoms. May cause respiratory sensitization upon re-exposure to material.

Ingestion: Harmful if swallowed. Causes severe irritation of the gastrointestinal tract with nausea, vomiting, abdominal pain and diarrhea. May cause unconsciousness and convulsions. May damage to the mucous lining of the gastrointestinal tract. May cause damage to the central nervous system. Aspiration of material into the lungs during swallowing or vomiting causing lung inflammation and chemical pneumonitis, which may be fatal. Symptoms of aspiration into the lungs include coughing, gasping, choking, shortness of breath, bluish colored skin, rapid breathing and rapid heart rate.

Chronic: Persons with pre-existing eye, skin and chronic respiratory disorders may be more susceptible to the effects of this material. May cause skin sensitization with subsequent contact dermatitis upon re-exposure to this material in susceptible individuals. Repeated exposure may damage the central nervous and respiratory systems. May cause respiratory sensitization with asthma-like symptoms. Can cause an allergic reaction in individuals sensitive to amines. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. Exposure to this material may damage fertility or the unborn child. Refer to Section 11.2.

4.3 Indication of any immediate medical attention and special treatment needed

Advice to doctor and hospital personnel

Maintain adequate ventilation and oxygenation of the patient. May cause asthma-like (reactive airways) symptoms. Bronchodilators, expectorants antitussives and corticosteroids may be of help. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24 - 48 hours for signs of respiratory distress. Treat symptomatically and supportively.

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable methods of extinction: Use extinguishing media such as water fog or spray, carbon dioxide, alcohol resistant foam or dry chemical.

Unsuitable methods of extinction: Water jets or streams may spread the fire.

5.2 Special hazards arising from the substance or mixture

Closed containers may explode due to the buildup of pressure when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent or may be delayed. Obtain medical attention.

Explosion hazards: This product is not considered to be an explosion hazard. Avoid high temperatures and hot surfaces.

5.3 Advice to firefighters

Firefighters should wear full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion when exposed to extreme heat. Firefighters must control runoff to prevent environmental contamination. Notify appropriate authorities of potential fire and explosion hazard if liquid enters sewers or waterways

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate non-essential personnel. Wear appropriate protective clothing and equipment designated in Section 8.2, including respiratory protection. Ventilate the area. Remove all sources of ignition. NO SMOKING. Clean up spills immediately. Spill creates a slip hazard.

6.2 Environmental precautions

Avoid dispersal of spilled material or runoff and prevent contact with soil and entry into drains, sewers or waterways. Use water sparingly to minimize environmental contamination and reduce disposal requirements.

6.3 Methods and materials for containment and cleaning up

Approach spill from upwind direction. DO NOT FLUSH SPILL DOWN THE DRAIN. Cover drains and contain spill. Cover spill with a large quantity of inert absorbent. Do not use combustible material such as sawdust. Collect material and place into an approved container for proper disposal. Observe possible material restrictions (Sections 7.2 and 10.5). Do not allow material or runoff from rinsing contaminated areas to enter floor drains or storm drains and ditches that lead to waterways. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections

See Section 13 for additional waste treatment information.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling

Wear all appropriate personal protective equipment specified in Section 8.2. Do not get in eyes or on skin or clothing. Do not inhale mist or vapor. NO SMOKING. If normal use of material presents a respiratory hazard, use only adequate ventilation or wear an appropriate respirator. Wash contaminated clothing and shoes thoroughly before reuse. Discard items that cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

Advice on protection against fire and explosion

Keep away from heat, hot surfaces and incompatible materials.

7.2 Conditions for safe storage, including any incompatibilities

Store in dry, cool, well-ventilated areas away from incompatible materials (see Section 10.5), food and drink. Transfer only to approved containers having correct labeling. Keep container tightly closed when not in use. Protect containers from physical damage. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Containers are hazardous when empty as they contain product residue. Use appropriate containment to avoid environmental contamination. Ventilate closed areas. Keep locked up and out of reach of children.

7.3 Specific end uses

Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limit values

CAS Number	Ingredient	OSHA PEL	ACGIH TLV	NIOSH
107-15-3	Ethylenediamine	10 ppm; 25 mg/m ³ TWA	10 ppm; Skin	10 ppm; 25 mg/m ³ TWA; 1,000 ppm IDLH

A "skin" notation following the inhalation exposure guideline refers to the potential for dermal absorption of the material, including eyes and mucous membranes, either by direct contact with vapors or by direct skin contact. It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposure should be considered.

8.2 Exposure controls

Engineering measures: Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable. Refer to Section 7.1.

Individual protection measures: Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

Hygiene measures: Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking, smoking or using the lavatory.

Eye/face protection: Wear chemical splash goggles or safety glasses with unperforated side shields during use.

Hand protection: Wear gloves recommended by glove supplier for protection against materials in Section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of selected gloves must be greater than the intended use period.

Skin protection: Wear protective clothing. Wear protective boots if the situation requires.

Respiratory protection: Always use an approved respirator when vapor/aerosols exceed permissible exposure limits. Where risk assessment shows air-purifying respirators are appropriate use a half-mask respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Follow OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

Environmental exposure controls: Do not empty into drains.

PPE must not be considered a long-term solution to exposure control. PPE usage must be accompanied by employer programs to properly select, maintain, clean fit and use. Consult a competent industrial hygiene resource to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.



Splash Goggles



Gloves



Protective Apron

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Clear, colorless, viscous liquid
Odor	Amine-like
Odor Threshold	No data available
Molecular Weight	Not applicable
Chemical Formula	Not applicable
pH	No data available
Melting Point	Not applicable
Boiling Point Range	No data available
Evaporation Rate	No data available
Flammability (solid, gas)	Not applicable
Flash Point	> 93.4 °C (> 200.1 °F) [estimated]
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Lower Explosive Limit (LEL)	No data available

Upper Explosive Limit (UEL)	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Density	0.972 - 1.012 g/ml (8.11 - 8.44 lb/gal)
Viscosity	No data available
Solubility in Water	Not applicable
Partition Coefficient (n-octanol/water)	Not applicable
Oxidizing Properties	Not applicable
Explosive Properties	Not applicable
Volatiles by Weight @ 21 °C	No data available

9.2 Other Data

No data available

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

No special reactivity has been reported during normal conditions of handling and use.

10.2 Chemical Stability

This material is stable under recommended conditions of storage and handling.

10.3 Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4 Conditions to avoid

High temperatures, hot surfaces, contact with incompatible materials.

10.5 Incompatible materials

Strong oxidizing agents, strong acids, strong alkalis

10.6 Hazardous decomposition products

Thermal decomposition products may include oxides of carbon, nitrogen oxides (NO_x), toxic fumes and gases.

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity

No data available

Acute inhalation toxicity

No data available

Acute dermal toxicity

No data available

Skin irritation

Causes severe burns to the skin.

Eye irritation

Causes serious eye damage.

Sensitization

May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carcinogenicity

No data available

Germ cell mutagenicity

No data available

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

Specific organ toxicity - single exposure

May cause respiratory irritation, drowsiness or dizziness.

Specific organ toxicity - repeated exposure

May cause damage to the central nervous system through prolonged and repeated exposure.

Aspiration hazard

No data available

11.2 Further information

Exposure to cycloaliphatic amines may cause reduced fetal weight, increased fetal deaths and skeletal malformations. It is suspected of damaging fertility.

This product contains no substances present at levels greater than or equal to the 0.1% threshold (de minimis) that are identified as a probable, possible, potential or confirmed carcinogens by ACGIH, IARC, NTP or OSHA.

Handle in accordance with good industrial hygiene and safety practice

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity

This material is harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

This material cannot be considered readily biodegradable.

12.3 Bioaccumulation potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other effects

Additional ecological information

Do not allow material to enter surface waters, wastewater or soil.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

The generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products in accordance with national, state and local regulations. Disposal of this product should always comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

RCRA D-Series: Ethylenediamine (CAS #107-15-3), D001

RCRA F-Series: No listings above the reportable threshold (de minimis)

RCRA U-Series: No listings above the reportable threshold (de minimis)

SECTION 14 - TRANSPORT INFORMATION

Note: Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

Limited quantity for corrosive liquids Packing Group III when inner packagings are not over 5.0 liters (1.3 gallons) net capacity each, packed in a strong outer packaging.

USA DOT (Ground Transportation)

Proper Shipping Name	Polyamines, liquid, corrosive, n.o.s. (Cycloaliphatic amine)
Hazard Class	8
UN	UN2735
Packing Group	III
NAERG	Guide #153
Packaging Authorization	Non-Bulk: 49 CFR 173.203; Bulk: 173.241
Packaging Exceptions	49 CFR 173.154

IMO/IMDG (Water Transportation)

Proper Shipping Name	Polyamines, liquid, corrosive, n.o.s. (Cycloaliphatic amine)
Hazard Class	8
UN	UN2735
Packing Group	III
Marine Pollutant	Yes
EMS Number	F-A, S-B

ICAO/IATA (Air Transportation)

Proper Shipping Name	Polyamines, liquid, corrosive, n.o.s. (Cycloaliphatic amine)
Hazard Class	8
UN	UN2735
Packing Group	III

Placard(s)



Quantity Limitations	49 CFR 175.27 and 175.75 - Cargo Aircraft Only: 60 l; Passenger Aircraft: 5 l
RID/ADR (Rail Transportation)	
Proper Shipping Name	Polyamines, liquid, corrosive, n.o.s. (Cycloaliphatic amine)
Hazard Class	8
UN	UN2735
Packing Group	III

SECTION 15 - REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for substance or mixture

U. S. Federal Regulations

OSHA Hazard Communication Standard: This material is classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

OSHA Process Safety Management Standard: This product is not regulated under OSHA PSM Standard 29 CFR 1910.119.

EPA Risk Management Planning Standard: This product is not regulated under EPA RMP Standard (RMP) 40 CFR Part 68.

EPA Federal Insecticide, Fungicide and Rodenticide Act: This product is not a registered Pesticide under the FIFRA, 40 CFR Part 150.

Toxic Substance Control Act (TSCA) Inventory: All substances in this product are listed on the TSCA Inventory. This product is not subject to TSCA 12(b) Export Notification.

Drug Enforcement Administration (DEA) List 2, Essential Chemicals (21 CFR 1310.02(b)) and 1310.4(f)(2)) and Chemical Code Number
No listings

Drug Enforcement Administration (DEA) Lists 1 & 2, Exempt Chemical Mixtures (21 CFR 1310.12(c)) and Code Number: No listings

Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards (CFATS) Chemicals: No listings

Superfund Amendments and Reauthorization Act (SARA)

SARA Section 311/312 Hazard Categories

Harmful if swallowed	May cause allergy or asthma symptoms or breathing difficulties if inhaled
Causes severe skin burns and eye damage	Suspected of damaging fertility or the unborn child
May cause an allergic skin reaction	Causes damage to organs through prolonged and repeated exposure

SARA 313 Information: None of the components of the product exceed the threshold (de minimis) reporting requirements of Section 313 of the Emergency Planning and Community Right-to Know Act of 1986.

SARA 302/304 Extremely Hazardous Substance: Ethylenediamine (CAS #107-15-3) is subject to the reporting levels established by of these sections of Title III of SARA. Threshold planning quantity (TPQ) = 10,000 lb

SARA 302/304 Emergency Planning & Notification: Ethylenediamine (CAS #107-15-3) is subject to the reporting levels established by of these sections of Title III of SARA. Reportable quantity (RQ) = 5,000 lb

Comprehensive Response Compensation and Liability Act (CERCLA): This product contains the following CERCLA reportable substance:
Ethylenediamine (CAS #107-15-3): RQ = 2,267.96 kg (5,000 lb)

Clean Air Act (CAA)

This product does not contain Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).

This product does not contain Class 1 ozone depleters.

This product does not contain Class 2 ozone depleters.

Clean Water Act (CWA)

Ethylenediamine (CAS #107-15-3) is a Hazardous Substance.

This product does not contain Priority Pollutants.

This product does not contain Toxic Pollutants.

U.S. State Regulations

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986

This product contains no chemical(s) known to the state of California to cause cancer birth defects or reproductive harm in concentrations that exceed the threshold (de minimis) reporting levels established under Proposition 65.

Other U.S. State Inventories

Ethylenediamine (CAS #107-15-3) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: DE, MN, NJ, NY, PA, RI, WI.

Canada

WHMIS Hazard Classification: No data available

Canadian National Pollutant Release Inventory (NPRI): None of the components in this product exceed the reporting threshold (de minimis) established by the NPRI.

European Economic Community

WGK, Germany (Water danger/protection): No data available

Global Chemical Inventory Lists

Country	Inventory Name	Listed
Canada	Domestic Substance List (DSL)	Yes

Canada	Non-Domestic Substance List (NDSL)	Yes
Europe	Inventory of New and Existing Chemicals (EINECS)	No
United States	Toxic Substance Control Act (TSCA)	Yes
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
New Zealand	New Zealand Inventory of Chemicals (NZIoC)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (KECI)	Yes
Philippines	Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Yes

*Yes - All components of this product comply with the inventory requirements administered by the governing country.

No - One or more components of this product are not on the inventory or are exempt from listing.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16 - OTHER INFORMATION

Hazardous Material Information System (HMIS)

HEALTH	*	3
FLAMMABILITY		1
PHYSICAL HAZARD		0
PERSONAL PROTECTION		C

C = safety goggles, gloves
& apron

HMIS Hazard Rating Legend

0 = Minimal 1 = Slight 2 = Moderate

3 = Serious 4 = Severe

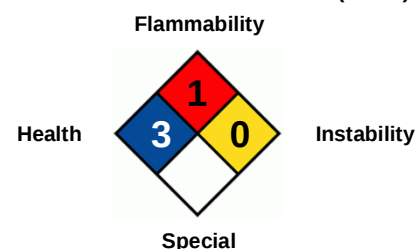
* = Chronic Health Hazard

NFPA Hazard Rating Legend

0 = Insignificant 1 = Slight 2 = Moderate

3 = High 4 = Extreme

National Fire Protection Association (NFPA)



Full Text of GHS Hazard Phrases Referenced in Section 3 (not covered in Section 2)

H315 - Causes skin irritation

H319 - Causes serious eye irritation

Abbreviation Key

ACGIH	American Conference of Governmental Industrial Hygienists	LD₅₀	Lowest Lethal Dose
ADR	Accord Dangereux Routier (European regulations concerning the international transport of dangerous goods by road)	mppcf	Millions of Particles Per Cubic Foot
CAS	Chemical Abstract Services	NA	North America
CFR	Code of Federal Regulations	NAERG	North American Emergency Response Guide Book
COC	Cleveland Open Cup	NIOSH	National Institute for Occupational Safety & Health
DOT	Department of Transportation	NTP	National Toxicology Program
EC₅₀	Half maximal effective concentration	OSHA	Occupational Safety and Health Administration
EMS	Emergency Response Procedures for Ships Carrying	PBT	Persistent, Bioaccumulating and Toxic
EPA	Environmental Protection Agency	PEL	Permissible exposure limit
ErC₅₀	Reduction of Growth Rate	PMCC	Pensky-Martens Closed Cup
ERG	Emergency Response Guide Book	ppm	Parts Per Million
FDA	Food and Drug Administration	RCRA	Resource Conservation and Recovery Act
GHS	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)	RID	Dangerous Goods by Rail
HCS	Hazard Communication Standard	RQ	Reportable Quantity
IARC	International Agency for Research on Cancer	TCC/Tag	Tagliabue Closed Cup
IATA	International Air Transport Association	TLV	Threshold Limit Value
IC₅₀	Half Maximal Inhibitory Concentration	TSCA	Toxic Substance Control Act
ICAO	International Civil Aviation Organization	TWA	Time-weighted Average
IDLH	Immediately Dangerous to Life and Health	UN	United Nations
IMDG	International Maritime Dangerous Goods	VOC	Volatile Organic Compounds
IMO	International Maritime Organization	vPvB	Very Persistent and Very Bioaccumulating
LC₅₀	50% Lethal Concentration	WHMIS	Workplace Hazardous Materials Information System
LD₅₀	50% Lethal Dose		

DISCLAIMER OF RESPONSIBILITY

The information herein is given in good faith and is believed to be accurate and correct; however, no warranty, expressed or implied, is made. BIO-DEK™, LLC assumes no responsibility for personal injury or property damage that may arise from the use of this material since the conditions of handling and use are beyond our control. It is the responsibility of the user to determine the suitability of this information for the adoption of the safety precautions as may be necessary. It is the responsibility of the user to comply with all Federal, State and local laws and regulations regarding use of this product. Vendees or users assume all risks associated with the use of this material. We reserve the right to revise Safety Data Sheets from time to time as new technical information becomes available. The user has the responsibility to contact the company to make sure that the Safety Data Sheet is the latest issue.

Preparation date: 10 February 2023, Version 1

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