

## Material Safety Data Sheets

### Product Identification

**Product Name:** ImmuKnow<sup>®</sup> – the Cylex<sup>™</sup> Immune Cell Function Assay  
Component A – Dynabeads<sup>®</sup>\* CD4

**Catalog Number:** 4402

### Composition / Information on Components:

- **COMPONENT A1:** Sodium Azide, 0.04% solution
- **Molecular Formula:** NaN<sub>3</sub>
- **Molecular Weight:** 65.0
- **CAS Number/Name:** #26628-22-8

### Hazards Identification for Solid Form:

- Highly toxic (USD definition)
- Very toxic (European definition)
- May cause heritable genetic damage
- Very toxic by inhalation, in contact with skin and if swallowed
- Heating may cause an explosion
- Readily absorbed through skin
- Avoid contact with metals
- Target Organ(s): Nerves; Heart
- In case of accident or if you feel unwell, seek medical advise immediately (show the label where possible); wear suitable protective clothing, gloves, and eye/face protection.
- Very toxic by inhalation, in contact with skin and if swallowed
- Do not breathe dust.

### Potential Health Effects for Solid Form:

**Inhalation:** May be fatal

**Ingestion:** May be fatal

**Skin:** May be fatal - May cause irritation

**Eyes:** May cause irritation

**Target Organs:** Nerves, heart, brain

**Target Organ Data:** Brain and Coverings (Increased Intracranial Pressure)  
Peripheral Nerve and Sensation (Spastic Paralysis w/wo Sensory changes)  
Sense Organs and special senses (Mydriasis)  
Central Nervous System: (General Anesthetic)  
Central Nervous System: (Somnolence)  
Central Nervous System: (Convulsions or effect on seizure threshold)  
Central Nervous System: (Change in Motor Activity)  
Central Nervous System: (Coma)  
Central Nervous System: (Headache)

Behavioral: (Irritability)  
Cardiac: (Arrhythmias)  
Cardiac: (Pulse Rate Decreased with Fall in BP)  
Cardiac: (Change in Force of Contraction)  
Vascular: (BP Lowering Not Characterized in Autonomic Section)  
Lungs, Thorax or Respiration: (Acute Pulmonary Edema)  
Lungs, Thorax or Respiration: (Dyspnae)  
Lungs, Thorax or Respiration: (Respiratory Stimulation)  
Lungs, Thorax or Respiration: (Other Changes)  
Gastrointestinal: (Hypermotility, Diarrhea)  
Kidney, Ureter, Bladder: (Other Changes)

Only selected registry of toxic effects of chemical substances (RTECS) data is presented here. See actual entry in RTECS for complete information

#### **First Aid Measures for solid form:**

- In case of contact, immediately flush eyes or skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes.
- If inhaled, remove to fresh air. If not breathing give artificial respiration
- If breathing is difficult, give oxygen
- If swallowed, wash out with water provided person is conscious
- Call a physician
- Wash contaminated clothing before reuse

#### **Fire Fighting Measures:**

##### Extinguishing Media

- Do not use water
- Dry chemical powder

##### Special Firefighting Procedures

- Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes

##### Unusual Fire and Explosions Hazards

- Container explosion may occur under fire conditions
- Emits toxic fumes under fire conditions

#### **Accidental Release Measures for solid form:**

- Evacuate area
- Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves
- Sweep up, place in a bag and hold for waste disposal
- Avoid raising dust
- Ventilate area and wash spill site after material pickup is complete

#### **Handling and Storage:**

Azide reacts with many heavy metals such as lead, copper, mercury, silver, or gold to form explosive compounds. Copper and lead azides are more sensitive than nitroglycerine. Azide reacts with metal halides to give a range of metal azide halides, many of which are explosive.

**Exposure Controls / Personal Protection**

- Wear suitable protective clothing, gloves, and eye/face protection
- Do not get in eyes, on skin, on clothing
- Wash thoroughly after handling

**ACGIH/OSHA Permissible Exposure Limit Data:** Not determined

**Physical and Chemical Properties:**

- **Form:** 0.04% solution
- **Odor:** None detected
- **pH:** Not determined

**Dangerous Reactions:** No information available for solution form.

**Dangerous Products of Decomposition:** No information available for solution form.

**Toxicological Information for solid form:**

- **RTECS Number:** VY 8050000
- **Acute Effects:** May be fatal if inhaled, swallowed, or absorbed through skin  
May cause eye irritation  
May cause skin irritation

**Health Hazards for solid form:** Nausea, Headache and Vomiting

**Additional Information for solid form:**

Laboratory experiments in animals have shown medium azide to produce a profound hypotensive effect, demyelination of myelinated nerve fibers in the central nervous system, testicular damage, blindness, attacks of rigidity, hepatic and cerebral effects.

**Toxicity data for solid form:**

ORL-Wmm	LOLO:786 MG/KG	MTAEEB	4,219,89
ORL-Man	LOLO:29 MG/KG	MTAEEG	4,219,89
ORL-Wmn	LOLO 14 MG/KG	JFSCAS	35,193,90
ORL-Man	LOLO 143 MG/KG	JTCTDW	24,339,86
ORL-Rat	LD50:27 MG/KG	FMCHA2	-,C32,91
SCU-Rat	LD50:45100 UG/KG	MEPAAX	12,427,61
ITR-Rat	LD50:47500 UG/KG	MEPAAX	12,427,61
ORL-MUS	LD50:27 MG/KG	CLOND	
IPR-MUS	LD50:28 MG/KG	JIHTAB	30,98,48
SCU-MUS	LD50:23060 UG/KG	MEPAAX	12,427,61
IVN-MUS	LD50:19 MG/KG	CLDND	
UNR-MUS	LD50:27 MG/KG	BJCAAI	6,160,52
SKN-RBT	LD50:20 MG/KG	FMCHA2	-,C32,91
ORL-BWD	LD50:23700 UG/KG	AECTCV	12,355,83

**Ecological Information:**

Information not available.

**Disposal Considerations:**

Observe all Federal, State, and Local environmental regulations.

### **Transport Information:**

No information available.

### **Regulations:**

- ACGIH TLV-CL 0.29 MG/M3
- Del-Australia: TWA 0.1 PPM (0.3 MG/M3) Jan93
- Del-Belgium: Stel 0.11 PPM (0.3 MG/M3) Jan93
- Del-Denmark: TWA 0.3 MG/M3 Jan93
- Del-Finland: TWA 0.1 PPM (0.3 MG/M3) Jan93
- Del-France: Stel 0.1 PPM (0.3 MG/M3) Jan93
- Del-Germany: TWA 0.07 PPM (0.2 MG/M3) Jan93
- Del-The Netherlands: TWA 0.1 PPM (0.3 MG/M3) Jan93
- Del-Switzerland: TWA 0.07 PPM (0.2 MG/M3) Jan93
- Del-United Kingdom: TWA 0.1 PPM (0.3 MG/M3) Jan93
- Del-In Bulgaria, Columbia, Jordan, Korean check ACGIH TLV
- Del-In New Zealand, Singapore, Vietnam check ACGIH TLV
- NIOSH Rel to Sodium Azide, as HN3-AIR:CI 0.1 PPM (SK)
- NIOSH DHHS #92-100, 92
- NOHS 1974: HZD 68820; NIS 13; TFN 877; NOS 10; TNE 5953
- NOES 1983: HZD 68820; NIS 19; TNF 3640; NOS 27; TNW 54959; TFE 38370
- EPA Genetox Program 1988, Positive: L5178Y Cells in vitro-TK Test
- EPA Genetox Program 1988, Positive: D Melanogaster Sex-Linked Lethal
- EPA Genetox Program 1988, Positive: S Cerevisiae Gene Conversion
- EPA Genetox Program 1988, Positive: S Cerevisiae Forward Mutation; S Cerevisiae-Reversion
- EPA Genetox Program 1988, Negative: Sperm Morphology-Mouse; in vitro UDS-Human Fibroblast
- EPA Genetox Program 1988, Negative: TRP Reversion
- EPA TSCA Section 8 (B) Chemical Inventory
- On EPA Iris Database
- EPA TSCA Test Submission (TSCATS) Data Base, April 1995
- NIOSH Current Intelligence Bulletin 13, 1976
- This product is subject to SARA Section 313 Reporting Requirements

### **Other Information:**

This product is not intended for food, drug, household, agricultural, or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. The above information is correct to the best of our knowledge. Users should make independent decisions regarding completeness of the information based on all sources available. Cylex will not be held liable for any damage resulting from handling or contact with the above product.

\*Dynabeads is a registered trademark of Invitrogen Dynal AS.