

**MATERIAL SAFETY DATA SHEET**

**SECTION 1. CHEMICAL IDENTIFICATION**

**CATALOG/PRODUCT#:** CN03 AND CN04

**NAME:** PROTEINS ISOLATED FROM THE CYTOTOXIC NECROTIZING FACTOR FAMILY OF BACTERIAL TOXINS, LABELED WITH A CELL PENETRATING PEPTIDE

**USE:** LABORATORY CHEMICALS

**MANUFACTURER/SUPPLIER:**

CYTOSKELETON INC.  
1830 S. Acoma St.  
Denver, CO 80223  
PHONE: 303-322-2254  
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24H EMERGENCY TOLL-FREE NUMBER: CALL INFOTRAC DAY OR NIGHT  
WITHIN USA AND CANADA: 1-800-535-5053  
OUTSIDE USA AND CANADA: +1 352-323-3500 (COLLECT CALLS ACCEPTED)

**SECTION 2. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

**OSHA HAZARDS**

THIS PRODUCT IS NOT CONSIDERED HAZARDOUS

**GHS CLASSIFICATION**

ACUTE TOXICITY	ORAL	CATEGORY 5
ACUTE TOXICITY	DERMAL	CATEGORY 5
ACUTE TOXICITY	INHALATION	CATEGORY 5

**GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS**

PICTOGRAM	NONE
SIGNAL WORD	WARNING

**HAZARD STATEMENTS**

H303 MAY BE HARMFUL IF SWALLOWED  
H313 MAY BE HARMFUL IF IN CONTACT WITH SKIN  
H333 MAY BE HARMFUL IF INHALED

**PRECAUTIONARY STATEMENTS**

P260 DO NOT BREATHE DUST/FUME/GAS/MIST/VAPORS/SPRAY  
P264 WASH HANDS THOROUGHLY AFTER HANDLING  
P270 DO NOT EAT, DRINK, OR SMOKE WHEN USING THIS PRODUCT  
P280 WEAR PROTECTIVE GLOVES/PROTECTIVE CLOTHING/EYE  
PROTECTION/FACE PROTECTION  
P305+P351+P338 IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL  
MINUTES. REMOVE CONTACT LENSES IF PRESENT AND EASY  
TO DO. CONTINUE RINSING

### **POTENTIAL HEALTH EFFECTS**

INHALATION MAY BE HARMFUL IF INHALED. CAUSES RESPIRATORY  
TRACT IRRITATION  
SKIN MAY BE HARMFUL IF ABSORBED THROUGH SKIN. CAUSES  
SKIN IRRITATION  
EYES CAUSES EYE IRRITATION  
INGESTION MAY BE HARMFUL IF SWALLOWED

### **NFPA RATINGS (SCALE 0-4)**

FIRE = 0  
HEALTH = 2  
REACTIVITY = 0

### **HMIS RATINGS**

HEALTH = 2  
FIRE = 0  
REACTIVITY = 0

### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

NON-HAZARDOUS PROTEINS AND NUCLEOTIDES IN ADDITION TO THE  
SUBSTANCES LISTED BELOW

PROTEINS ISOLATED FROM THE CYTOTOXIC CAS#: NONE  
NECROTIZING FACTOR FAMILY OF BACTERIAL EINECS#: NONE  
TOXINS

### **SECTION 4. FIRST-AID MEASURES**

**AFTER INHALATION:** SUPPLY FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL  
RESPIRATION. CONSULT PHYSICIAN  
**AFTER SKIN CONTACT:** IMMEDIATELY WASH SKIN WITH SOAP AND RINSE WITH  
COPIOUS AMOUNTS OF WATER. CONSULT A PHYSICIAN  
**AFTER EYE CONTACT:** RINSE OPENED EYE FOR AT LEAST 15 MINUTES UNDER  
RUNNING WATER. CONSULT PHYSICIAN  
**AFTER SWALLOWING:** WASH OUT MOUTH WITH WATER PROVIDED PERSON IS  
CONSCIOUS. CALL FOR PHYSICIAN

WASH CONTAMINATED CLOTHING BEFORE REUSE.

### **SECTION 5. FIREFIGHTING MEASURES**

## **EXTINGUISHING MEDIA**

**SUITABLE EXTINGUISHING AGENTS:** CARBON DIOXIDE, EXTINGUISHING POWDER OR WATER SPRAY.

## **ADVICE FOR FIREFIGHTERS**

**PROTECTIVE EQUIPMENT:** MOUNT RESPIRATORY PROTECTIVE DEVICE  
PREVENT CONTACT WITH SKIN AND EYES

## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:** WEAR PROTECTIVE CLOTHING, RESPIRATOR, CHEMICAL SAFETY GOGGLES, GLOVES. AVOID DUST FORMATION. AVOID BREATHING DUST.

**ENVIRONMENTAL PRECAUTIONS:** DILUTE WITH PLENTY OF WATER. DO NOT ALLOW TO ENTER SEWERS/SURFACE OR GROUND WATER.

**METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:** ABSORB WITH LIQUID-BINDING MATERIAL (SAND, DIATOMITE, ACID BINDERS, UNIVERSAL BINDERS, SAWDUST). DISPOSE CONTAMINATED MATERIAL AS WASTE ACCORDING TO SECTION 13. ENSURE ADEQUATE VENTILATION.

**REFERENCE TO OTHER SECTIONS:** SEE SECTION 8 FOR INFORMATION ON PERSONAL PROTECTION EQUIPMENT. SEE SECTION 13 FOR DISPOSAL INFORMATION.

## **SECTION 7. HANDLING AND STORAGE**

### **HANDLING**

**PRECAUTIONS FOR SAFE HANDLING:** AVOID FORMATION OF DUST AND AEROSOLS. ENSURE GOOD VENTILATION/EXHAUSTION AT THE WORKPLACE. WEAR APPROPRIATE PROTECTIVE CLOTHING (SEE SECTION 8). DO NOT RE-USE CONTAINER.

**INFORMATION ABOUT PROTECTION AGAINST EXPLOSIONS AND FIRES:** NOT IGNITABLE

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES  
STORAGE

**REQUIREMENTS TO BE MET BY STOREROOMS AND RECEPTACLES:** STORE AT 2-8°C. KEEP CONTAINER TIGHTLY CLOSED AND SEALED UNTIL READY FOR USE. STORE DESICCATED.

**FURTHER INFORMATION ABOUT STORAGE CONDITIONS:** KEEP RECEPTACLE TIGHTLY SEALED.

## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

CONTAINS NO SUBSTANCES WITH OCCUPATIONAL EXPOSURE LIMIT VALUES

### **GENERAL PROTECTIVE AND HYGIENIC MEASURES**

KEEP AWAY FROM FOODSTUFFS, BEVERAGES AND FEED

WASH HANDS BEFORE BREAKS AND AT THE END OF WORK

IMMEDIATELY REMOVE ALL SOILED AND CONTAMINATED CLOTHING

AVOID CONTACT WITH THE EYES AND SKIN

## **PERSONAL PROTECTIVE EQUIPMENT**

### **BREATHING EQUIPMENT**

USE DUST MASK TYPE N95 OR TYPE P1 RESPIRATOR.  
DO NOT BREATHE. USE MECHANICAL EXHAUST SYSTEM

### **PROTECTION OF HANDS PROTECTIVE GLOVES.**

THE GLOVE MATERIAL HAS TO BE IMPERMEABLE AND RESISTANT TO THE PRODUCT/SUBSTANCE/PREPARATION. AS THE PRODUCT IS A PREPARATION OF SEVERAL SUBSTANCES, THE RESISTANCE OF THE GLOVE MATERIAL CANNOT BE CALCULATED IN ADVANCE AND THEREFORE HAS TO BE CHECKED PRIOR TO APPLICATION. NO RECOMMENDATION CAN BE GIVEN FOR THE GLOVE MATERIAL FOR THIS PRODUCT. SELECT GLOVE MATERIALS BASE ON PENETRATION TIMES, RATES OF DIFFUSION AND DEGRADATION OF MATERIAL.

### **MATERIAL OF GLOVES**

THE SELECTION OF SUITABLE GLOVES DEPENDS NOT ONLY ON THE MATERIAL BUT ON QUALITY OF MATERIAL AND VARIES FROM MANUFACTURER TO MANUFACTURER.

### **PENETRATION TIME OF GLOVE MATERIAL**

THE EXACT BREAK THROUGH TIME HAS TO BE FOUND OUT BY THE MANUFACTURER OF THE PROTECTIVE GLOVES AND HAS TO BE OBSERVED.

### **FOR THE PERMANENT CONTACT OF A MAXIMUM OF 15 MINUTES, GLOVES MADE OF THE FOLLOWING MATERIALS ARE SUITABLE:**

NEOPRENE GLOVES

**EYE PROTECTION:** TIGHTLY SEALED GOGGLES

**BODY PROTECTION:** PROTECTIVE WORK CLOTHING

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

### **INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

#### **GENERAL INFORMATION**

FORM: SOLID (LYOPHILIZED POWDER)

CHANGE IN CONDITION

MELTING POINT/MELTING RANGE: NO DATA AVAILABLE

BOILING POINT/BOILING RANGE: NO DATA AVAILABLE

FLASH POINT: NO DATA AVAILABLE

SELF-IGNITING: NO DATA AVAILABLE

DANGER OF EXPLOSION: NO DATA AVAILABLE

DENSITY: NO DATA AVAILABLE

SOLUBILITY IN/MISCIBILITY WITH WATER: FULLY MISCIBLE

## **SECTION 10. STABILITY AND REACTIVITY**

### **REACTIVITY**

#### **CHEMICAL STABILITY**

STABLE BETWEEN -20°C AND ROOM TEMPERATURE 24°C.

**THERMAL DECOMPOSITION/CONDITIONS TO BE AVOIDED:** NO DATA AVAILABLE

**POSSIBILITY OF HAZARDOUS REACTIONS:** AVOID STRONG OXIDIZING AGENTS

**HAZARDOUS DECOMPOSITION PRODUCTS:** HAZARDOUS DECOMPOSITION PRODUCTS FORMED UNDER FIRE CONDITIONS - NATURE OF PRODUCTS NOT KNOWN

## **SECTION 11. TOXICOLOGICAL INFORMATION**

### **INFORMATION ON TOXICOLOGICAL EFFECTS**

TO THE BEST OF OUR KNOWLEDGE, THE TOXICOLOGICAL PROPERTIES OF THIS PRODUCT HAVE NOT BEEN THOROUGHLY INVESTIGATED.

**ACUTE TOXICITY:** NO DATA AVAILABLE

**SKIN CORROSION/IRRITATION:** NO DATA AVAILABLE

**SERIOUS EYE DAMAGE/EYE IRRITATION:** NO DATA AVAILABLE

**RESPIRATORY OR SKIN SENSITIZATION:** PROLONGED OR REPEATED EXPOSURE MAY CAUSE ALLERGIC REACTIONS

**GERM CELL MUTAGENICITY:** NO DATA AVAILABLE

### **CARCINOGENICITY**

NO DATA AVAILABLE

**REPRODUCTIVE TOXICITY:** NO DATA AVAILABLE

**SPECIFIC ORGAN TOXICITY:** (SINGLE OR REPEATED EXPOSURE): NO DATA AVAILABLE

### **POTENTIAL HEALTH EFFECTS**

INHALATION	MAY BE HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT IRRITATION
SKIN	MAY BE HARMFUL IF ABSORBED THROUGH SKIN. CAUSES SKIN IRRITATION
EYES	CAUSES EYE IRRITATION
INGESTION	MAY BE HARMFUL IF SWALLOWED

## **SECTION 12. ECOLOGICAL INFORMATION**

NO DATA AVAILABLE

## **SECTION 13. DISPOSAL CONSIDERATIONS**

### **WASTE TREATMENT METHODS**

CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF THIS MATERIAL. DISPOSAL OF THIS PRODUCT, SOLUTIONS AND ANY BY-PRODUCTS SHOULD AT ALL TIMES 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. OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

CONTAMINATED PACKAGING: DISPOSE OF AS UNUSED PRODUCT

#### **SECTION 14. TRANSPORT INFORMATION**

DOT CLASSIFICATION: THIS PRODUCT IS CONSIDERED TO BE NON-HAZARDOUS FOR TRANSPORT.

IATA-DGR CLASSIFICATION: THIS PRODUCT IS CONSIDERED TO BE NON-HAZARDOUS FOR TRANSPORT.

IMDG CLASSIFICATION: THIS PRODUCT IS CONSIDERED TO BE NON-HAZARDOUS FOR TRANSPORT.

#### **SECTION 15. REGULATORY INFORMATION**

##### **OSHA HAZARDS**

IRRITANT

##### **EU REGULATORY INFORMATION**

SYMBOL OF DANGER: Xi

INDICATION OF DANGER: IRRITANT

RISK CODE: 37

RISK STATEMENTS: IRRITATING TO RESPIRATORY SYSTEM

SAFETY CODE: 26-36

SAFETY STATEMENTS: IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE. WEAR SUITABLE PROTECTIVE CLOTHING.

##### **UNITED STATES REGULATORY INFORMATION**

**SARA (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986-USA) SECTION 302/304 (40CFR355.30/40CFR355.40):**

NONE OF THE INGREDIENTS IS LISTED.

**SARA (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986-USA) SECTION 313:**

THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL COMPONENTS WITH KNOWN CAS NUMBERS THAT EXCEED THE THRESHOLD (DE MINIMIS) REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313.

**SARA 311/312 HAZARDS**  
ACUTE HEALTH HAZARD

**CANADA REGULATORY INFORMATION**

WHMIS CLASSIFICATION: THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

**CALIFORNIA PROP. 65 COMPONENTS**

THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS, OR ANY OTHER REPRODUCTIVE HARM.

**SECTION 16. OTHER INFORMATION**

THIS INFORMATION IS BASED ON OUR PRESENT KNOWLEDGE. HOWEVER, THIS SHALL NOT CONSTITUTE A GUARANTEE FOR ANY SPECIFIC PRODUCT FEATURES AND SHALL NOT ESTABLISH A LEGALLY VALID CONTRACTUAL RELATIONSHIP. THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT, BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. CYTOSKELETON INC. SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM CONTACT WITH THE ABOVE PRODUCT.

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