

**MATERIAL SAFETY DATA SHEET**

**SECTION 1. CHEMICAL IDENTIFICATION**

**CATALOG/PRODUCT#:** TL620M

**NAME:** TUBULIN PROTEINS DERIVED FROM BOVINE BRAIN LABELED WITH 6-CARBOXY-X-RHODAMINE N-SUCCINIMIDYL ESTER

**USE:** LABORATORY CHEMICALS

**MANUFACTURER/SUPPLIER:**

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24H EMERGENCY TOLL-FREE NUMBER: CALL INFOTRAC DAY OR NIGHT  
WITHIN USA AND CANADA: 1-800-535-5053  
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**SECTION 2. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

THIS PRODUCT CONTAINS A COMPONENT DEEMED HAZARDOUS BY OSHA (29 CFR 1910.1200), EUROPEAN UNION DIRECTIVE 67/548/EC AND GHS AT A CONCENTRATION OF <1%. THEREFORE, THIS PRODUCT IS NOT CONSIDERED HAZARDOUS.

**OSHA HAZARDS**  
IRRITANT

ROUTES OF ENTRY: DERMAL CONTACT, EYE CONTACT, INHALATION, INGESTION

POTENTIAL ACUTE HEALTH EFFECTS

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

POTENTIAL CHRONIC HEALTH EFFECTS

CHRONIC EFFECTS REPEATED OR PROLONGED INHALATION OF DUST MAY LEAD TO CHRONIC RESPIRATORY IRRITATION. ONCE SENSITIZED, A SEVERE ALLERGIC REACTION MAY OCCUR WHEN SUBSEQUENTLY EXPOSED TO VERY LOW LEVELS

OVER-EXPOSURE SIGNS/SYMPTOMS

INHALATION	RESPIRATORY TRACT IRRITATION, COUGHING, WHEEZING AND BREATHING DIFFICULTIES, ASTHMA
INGESTION	NO SPECIFIC DATA
SKIN	IRRITATION, REDNESS
EYES	IRRITATION, WATERING, REDNESS

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

FIRE = 0  
HEALTH = 2\*  
REACTIVITY = 0

**HMIS RATINGS**

HEALTH = 2\*  
FIRE = 0  
REACTIVITY = 0

\*AT CONCENTRATIONS ABOVE 1%. THIS PRODUCT CONTAINS THE HAZARDOUS COMPONENT AT CONCENTRATIONS <1%.

**GHS LABELS**

HAZARDOUS STATEMENTS:

H315: IRRITATING TO SKIN  
H319: CAUSES SEVERE EYE IRRITATION  
H335: MAY CAUSE RESPIRATORY TRACT IRRITATION

PRECAUTIONARY STATEMENTS:

P261: AVOID BREATHING DUST/FUME/GAS/MIST/VAPORS/AEROSOLS  
P280: WEAR PROTECTIVE GLOVES/PROTECTIVE CLOTHING/EYE PROTECTION/FACE SHIELD  
P305 + P351 + P338: IF IN EYES: RINSE CAUTIOUSLY FOR SEVERAL MINUTES WITH WATER. REMOVE CONTACT LENSES IF THEY ARE PRESENT AND IF THEY CAN BE REMOVED EASILY. CONTINUE TO RINSE.

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

PIPES (PIPERAZINE-N, N-BIS(2-ETHANESULFONIC ACID), SESQUISODIUM SALT	CAS#: 100037-69-2 EINECS#: UNLISTED	<1%
FICOLL (SUCROSE, EPICHLOROHYDRIN COPOLYMER)	CAS#: 26873-85-8 EINECS#: UNLISTED	<1%
SUCROSE	CAS#: 57-50-1 EINECS#: 200-334-9	<1%
GLYCEROL	CAS#: 56-81-5 EINECS#: 200-289-5	<1%
ANTIFOAM C	CAS#: UNLISTED EINECS#: UNLISTED	<0.1%
DTT (DITHIOTHREITOL)	CAS#: 3483-12-3 EINECS#: 222-468-7	<1%
GTP (GUANOSINE 5'-TRIPHOSPHATE SODIUM SALT HYDRATE)	CAS#: 36051-31-7 EINECS#: 252-847-2	<1%
MAGNESIUM CHLORIDE	CAS#: 7791-18-6 EINECS#: UNLISTED	<1%
EGTA (ETHYLENE GLYCOL-BIS(2-AMINOETHYLETHER)- N,N,N',N'-TETRAACETIC ACID	CAS#: 67-42-5 EINECS#:200-651-2	<1%
6-CARBOXY-X-RHODAMINE N-SUCCINIMIDYL ESTER	CAS#: 216699-36-4 EINECS#: NONE	<1%
PROTEIN	CAS#: NONE EINECS#: NONE	≥95%

#### SECTION 4. FIRST-AID MEASURES

**AFTER INHALATION:** SUPPLY FRESH AIR. IF NOT BREATHING, IF BREATHING IS IRREGULAR OR IF RESPIRATORY ARREST OCCURS, PROVIDE ARTIFICIAL RESPIRATION. CONSULT PHYSICIAN

**AFTER SKIN CONTACT:** IMMEDIATELY WASH SKIN WITH SOAP AND RINSE WITH COPIOUS AMOUNTS OF WATER. CONSULT PHYSICIAN

**AFTER EYE CONTACT:** CHECK FOR AND REMOVE ANY CONTACT LENSES. RINSE OPENED EYE FOR AT LEAST 15 MINUTES UNDER RUNNING WATER. THEN CONSULT PHYSICIAN

**AFTER SWALLOWING:** WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CONSULT PHYSICIAN

WASH CONTAMINATED CLOTHING BEFORE REUSE.

#### SECTION 5. FIREFIGHTING MEASURES

## **FLAMMABLE PROPERTIES**

FLASH POINT: NO DATA AVAILABLE

IGNITION TEMPERATURE: NO DATA AVAILABLE

## **EXTINGUISHING MEDIA**

**SUITABLE EXTINGUISHING AGENTS:** USE DRY CHEMICAL POWDER, WATER SPRAY, CARBON DIOXIDE OR ALCOHOL-RESISTANT FOAM.

## **ADVICE FOR FIREFIGHTERS**

**PROTECTIVE EQUIPMENT:** MOUNT RESPIRATORY PROTECTIVE DEVICE  
PREVENT CONTACT WITH SKIN, FACE 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. ENSURE ADEQUATE VENTILATION.

**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:** FOR POWDER, PICK UP AND ARRANGE DISPOSAL WITHOUT CREATING DUST. KEEP IN SUITABLE CLOSED CONTAINERS FOR DISPOSAL. FOR RECONSTITUTED LIQUID, 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:** ENSURE GOOD VENTILATION/EXHAUSTION AT THE WORKPLACE. WEAR APPROPRIATE PROTECTIVE CLOTHING (SEE SECTION 8). DO NOT RE-USE CONTAINER. DO NOT EAT, DRINK OR SMOKE IN AREAS WHERE THIS PRODUCT IS HANDLED, STORED OR PROCESSED. WASH HANDS AFTER WORKING WITH MATERIAL. AVOID CONTACT WITH SKIN AND EYES. AVOID FORMATION OF DUST AND AEROSOLS.

**INFORMATION ABOUT PROTECTION AGAINST EXPLOSIONS AND FIRES:** STORE IN CONTAINER PROTECTED FROM DIRECT SUNLIGHT IN A DRY, COOL, WELL-VENTILATED PLACE. STORE AT -70 DEGREES C OR 4 DEGREES C WITH DESICCANT. SEPARATE FROM OXIDIZING MATERIALS. KEEP CONTAINERS CLOSED AND SEALED.

### **CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES STORAGE**

**REQUIREMENTS TO BE MET BY STOREROOMS AND RECEPTACLES:** STORE AT 2-8°C WITH DESICCANT (OR -70 DEGREES 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

### **PERSONAL PROTECTIVE EQUIPMENT**

#### **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

#### **BREATHING EQUIPMENT**

SHORT TERM FILTER DEVICE: FILTER P1  
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 OR SAFETY GLASSES

**BODY PROTECTION:** PROTECTIVE WORK CLOTHING

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

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

#### **GENERAL INFORMATION**

FORM: SOLID (LYOPHILIZED POWDER)  
COLOR: RED TO PINK

CHANGE IN CONDITION  
MELTING POINT/MELTING RANGE: NO DATA AVAILABLE  
BOILING POINT/BOILING RANGE: NO DATA AVAILABLE  
FLASH POINT: NO DATA AVAILABLE  
SELF-IGNITING: PRODUCT IS NOT SELF-IGNITING  
DANGER OF EXPLOSION: PRODUCT IS NOT EXPLOSIVE.  
DENSITY: NO DATA AVAILABLE  
SOLUBILITY IN/MISCIBILITY WITH WATER: FULLY MISCIBLE

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

### **REACTIVITY**

**CHEMICAL STABILITY:** THE PRODUCT IS STABLE WHEN STORED AS RECOMMENDED.

**THERMAL DECOMPOSITION/CONDITIONS TO BE AVOIDED:** AVOID CREATION OF DUST WHEN HANDLING AND AVOID ALL POSSIBLE SOURCES OF IGNITION. PREVENT DUST ACCUMULATION. REACTIVE OR INCOMPATIBLE WITH OXIDIZING MATERIALS.

**POSSIBILITY OF HAZARDOUS REACTIONS:** NO DANGEROUS REACTIONS KNOWN

**HAZARDOUS DECOMPOSITION PRODUCTS:** NO DANGEROUS PRODUCTS 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.

NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

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

NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED HUMAN CARCINOGEN BY IARC, ACGIH, NTP OR OSHA.

## **SECTION 12. ECOLOGICAL INFORMATION**

NO DATA AVAILABLE. NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS.

## **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.

DISPOSE OF CONTAMINATED PACKAGING AS UNUSED PRODUCT.

## **SECTION 14. TRANSPORT INFORMATION**

DOT CLASSIFICATION: THIS PRODUCT IS CONSIDERED TO BE NON-HAZARDOUS FOR TRANSPORT. NOT REGULATED

IATA-DGR CLASSIFICATION: THIS PRODUCT IS CONSIDERED TO BE NON-HAZARDOUS FOR TRANSPORT. NOT REGULATED

IMDG CLASSIFICATION: THIS PRODUCT IS CONSIDERED TO BE NON-HAZARDOUS FOR TRANSPORT. NOT REGULATED

## **SECTION 15. REGULATORY INFORMATION**

### **OSHA HAZARDS**

IRRITANT

### **DSL STATUS**

THIS PRODUCT CONTAINS THE FOLLOWING COMPONENTS THAT ARE NOT ON THE CANADIAN DSL NOR NDSL LISTS.

6-CARBOXY-X-RHODAMINE N-SUCCINIMIDYL ESTER

CAS#: 216699-36-4

### **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 311/312 HAZARDS**

ACUTE HEALTH HAZARD

#### **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.

### **PA AND NJ RIGHT TO KNOW COMPONENTS**

6-CARBOXY-X-RHODAMINE N-SUCCINIMIDYL ESTER  
CAS#: 216699-36-4

#### **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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