

MATERIAL SAFETY DATA SHEET

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG/PRODUCT#: AR05

NAME: MUSCLE ACTIN PROTEINS DERIVED FROM RABBIT SKELETAL MUSCLE
LABELED WITH TETRAMETHYLRHODAMINE-5 (AND 6) ISOTHIOCYANATE (TRITC)

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

OSHA HAZARDS

NOTE: COMPONENTS DEEMED HAZARDOUS BY OSHA (29 CFR 1910.1200) ARE PRESENT AT <1% CONCENTRATION. THEREFORE, THIS PRODUCT IS NOT CONSIDERED HAZARDOUS BY THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

GHS CLASSIFICATION

THIS PRODUCT IS NOT CONSIDERED HAZARDOUS DUE TO <1%
TETRAMETHYLRHODAMINE-5 (AND 6) ISOTHIOCYANATE (TRITC)

AT CONCENTRATIONS ABOVE 1%, HAZARDOUS INFORMATION IS LISTED BELOW:

GHS CLASSIFICATION:

| | |
|---|------------|
| SKIN CORROSION/IRRITATION | CATEGORY 2 |
| SERIOUS EYE DAMAGE/IRRITATION | CATEGORY 2 |
| RESPIRATORY SENSITIZATION | CATEGORY 1 |
| SKIN SENSITIZATION | CATEGORY 1 |
| SPECIFIC TARGET ORGAN SYSTEM TOXICITY (SINGLE EXPOSURE) | CATEGORY 3 |

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS



PICTOGRAM:

SIGNAL WORD: DANGER

HAZARD STATEMENTS:

- H315 CAUSES SKIN IRRITATION
- H319 CAUSES SERIOUS EYE IRRITATION
- H317 MAY CAUSE AN ALLERGIC SKIN REACTION
- H334 MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED
- H335 MAY CAUSE RESPIRATORY IRRITATION

PRECAUTIONARY STATEMENTS:

- | | |
|----------------|---|
| P302+P352 | IF ON SKIN, WASH WITH PLENTY OF SOAP AND WATER |
| P305+P351+P338 | IF IN EYES, RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES IF PRESENT AND EASY TO DO. CONTINUE RINSING. |
| P304+P340 | IF INHALED, REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING |
| P332+P313 | IF SKIN IRRITATION OCCURS, GET MEDICAL ADVICE/ATTENTION |
| P337+P313 | IF EYE IRRITATION PERSISTS, GET MEDICAL ADVICE/ATTENTION |
| P261 | AVOID BREATHING DUST/FUME/GAS/MIST/VAPORS/SPRAY |

PRINCIPLE ROUTES OF EXPOSURE

POTENTIAL HEALTH EFFECTS

- | | |
|------------|--|
| EYES | IRRITATING TO EYES |
| SKIN | IRRITATING TO SKIN |
| INHALATION | IRRITATING TO RESPIRATORY SYSTEM |
| INGESTION | MAY BE HARMFUL IF SWALLOWED. INGESTION MAY CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, AND DIARRHEA |

SPECIFIC EFFECTS

- | | |
|-----------------------|------------|
| CARCINOGENIC EFFECTS | NONE |
| MUTAGENIC EFFECTS | NONE |
| REPRODUCTIVE TOXICITY | NONE |
| SENSITIZATION | CATEGORY 1 |

TARGET ORGAN EFFECTS NONE UNDER NORMAL USE

HMIS RATINGS

HEALTH = 4*

FIRE = 0

REACTIVITY = 0

*AT CONCENTRATIONS ABOVE 1% TRITC-RHODAMINE. THIS PRODUCT HAS <1% TRITC RHODAMINE.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

| | | |
|--|--|------|
| SUCROSE | CAS#: 57-50-1 EINECS#: 200-334-9 | <1% |
| TRIS BASE | CAS#: 77-86-1 EINECS#: 201-064-4 | <1% |
| DEXTRAN | CAS#: 9004-54-0 EINECS#: 232-677-5 | <1% |
| CALCIUM CHLORIDE | CAS#: 10035-04-8 EINECS#: 233-140-8 | <1% |
| ADENOSINE 5'-TRIPHOSPHATE DISODIUM SALT (ATP) | CAS#: 42373-41-1 EINECS#: UNLISTED | <1% |
| 9-(2-CARBOXYISOTHIOCYANATOPHENYL)-3,6-BIS(DIMETHYLAMINO) XANTHYLIUM INNER SALT | CAS#: 95197-95-8 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. CALL FOR PHYSICIAN

WASH CONTAMINATED CLOTHING BEFORE REUSE.

SECTION 5. FIREFIGHTING MEASURES

FINE DUST CLOUDS MAY FORM EXPLOSIVE MIXTURES WITH AIR

EXTINGUISHING MEDIA

SUITABLE EXTINGUISHING AGENTS: USE DRY CHEMICAL POWDER. DO NOT USE WATER SPRAY

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.

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: 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.

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. ELIMINATE ALL IGNITION SOURCES AND 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

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 P2
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)

COLOR: RED/PINK

CHANGE IN CONDITION

MELTING POINT/MELTING RANGE: N/A

BOILING POINT/BOILING RANGE: N/A

FLASH POINT: N/A.

SELF-IGNITING: PRODUCT IS NOT SELF-IGNITING

DANGER OF EXPLOSION: PRODUCT IS NOT EXPLOSIVE.

DENSITY: NOT DETERMINED

SOLUBILITY IN/MISCIBILITY WITH WATER: FULLY MISCIBLE

SECTION 10. STABILITY AND REACTIVITY

REACTIVITY

CHEMICAL STABILITY: THE PRODUCT IS STABLE.

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 | SLIGHTLY IRRITATING TO THE RESPIRATORY SYSTEM. MAY CAUSE SENSITIZATION BY INHALATION. EXPOSURE TO DECOMPOSITION PRODUCTS MAY CAUSE A HEALTH HAZARD. |
| INGESTION | NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS |
| SKIN | SLIGHTLY IRRITATING TO THE SKIN |
| EYES | SLIGHTLY IRRITATING TO THE EYES |

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.

WITHIN THE PRESENT KNOWLEDGE OF THE SUPPLIER, THIS PRODUCT IS NOT REGARDED AS HAZARDOUS WASTE, AS DEFINED BY EU DIRECTIVE 91/689/EC.

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

SECTION 15. REGULATORY INFORMATION

UNITED STATES REGULATORY INFORMATION

HCS CLASSIFICATION: SENSITIZING MATERIAL

**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 302/304/311/312:**
NO PRODUCTS WERE 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.

CANADA REGULATORY INFORMATION

WHMIS CLASSIFICATION: CLASS D-2B: MATERIAL CAUSING OTHER TOXIC
EFFECTS (TOXIC).

EU REGULATORY INFORMATION

THIS PRODUCT IS NOT CLASSIFIED ACCORDING TO EU LEGISLATION.

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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