

MATERIAL SAFETY DATA SHEET

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG/PRODUCT#: FNR01

NAME: FIBRONECTIN, ISOLATED FROM BOVINE PLASMA, LABELED WITH 5-(AND-6)-CARBOXYTETRAMETHYLRHODAMINE SUCCINIMIDYL ESTER

USE: LABORATORY CHEMICALS

MANUFACTURER/SUPPLIER:

CYTOSKELETON INC.
1830 S. Acoma St.
Denver, CO 80223
PHONE: 303-322-2254
FAX: 303-322-2257

24H EMERGENCY TOLL-FREE NUMBER: CALL CHEMTREC DAY OR NIGHT
WITHIN USA AND CANADA: 1-800-424-9300
OUTSIDE USA AND CANADA: +1 703-527-3887 (COLLECT CALLS ACCEPTED)

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

SUCROSE	CAS#: 57-50-1 EINECS#: 200-334-9	5%
5-(AND-6)-CARBOXYTETRAMETHYLRHODAMINE SUCCINIMIDYL ESTER	CAS#: 246256-50-8 EINECS#: NONE	<1%
FIBRONECTIN	CAS#: 86088-83-7 EINECS#: 289-149-2	≥95%

SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

OSHA HAZARDS

NO KNOWN OSHA HAZARDS

THIS PRODUCT IS NOT CONSIDERED HAZARDOUS BY THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

THIS PRODUCT IS NOT CLASSIFIED AS HAZARDOUS ACCORDING TO DIRECTIVE 67/548/EC.

THIS PRODUCT IS NOT CONSIDERED A HAZARDOUS OR DANGEROUS SUBSTANCE ACCORDING TO GHS

NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS. HANDLING AND/OR PROCESSING OF THIS MATERIAL MAY GENERATE A DUST WHICH CAN CAUSE MECHANICAL IRRITATION OF THE EYES, SKIN, NOSE AND THROAT. AVOID PROLONGED CONTACT WITH EYES, SKIN AND CLOTHING. MAY CAUSE ALLERGIC RESPIRATORY REACTION

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

POTENTIAL ACUTE HEALTH EFFECTS

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

NO KNOWN SIGNIFICANT EFFECTS OR CRITICAL HAZARDS FOR CARCINOGENICITY, MUTAGENICITY, TERATOGENICITY, DEVELOPMENTAL EFFECTS OR FERTILITY EFFECTS

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 = 0
REACTIVITY = 0

HMIS RATINGS

HEALTH = 0
FIRE = 0
REACTIVITY = 0

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.

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

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

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

WASH CONTAMINATED CLOTHING BEFORE REUSE.

SECTION 5. FIREFIGHTING MEASURES

CONDITIONS OF FLAMMABILITY

NOT FLAMMABLE OR COMBUSTIBLE

EXTINGUISHING MEDIA

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

ADVICE FOR FIREFIGHTERS

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

HAZARDOUS COMBUSTION PRODUCTS

HAZARDOUS DECOMPOSITION PRODUCTS FORMED UNDER FIRE CONDITIONS:
CARBON OXIDES, NITROGEN OXIDES, SULPHUR OXIDES

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 AND PROTECTED FROM LIGHT. LIGHT SENSITIVE.

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 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 TROUGH 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 UNDER RECOMMENDED STORAGE CONDITIONS.

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 STRONG 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.

ACUTE TOXICITY

ORAL LD50: NO DATA AVAILABLE

INHALATION LC50: NO DATA AVAILABLE

DERMAL LD50: NO DATA AVAILABLE

SKIN CORROSION/IRRITATION: NO DATA AVAILABLE

SERIOUS EYE DAMAGE/EYE IRRITATION: NO DATA AVAILABLE

RESPIRATORY OR SKIN SENSITIZATION: NO DATA AVAILABLE

GERM CELL MUTAGENICITY: NO DATA AVAILABLE

CARCINOGENICITY: 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.

REPRODUCTIVE TOXICITY

NO DATA AVAILABLE

TERATOGENICITY

NO DATA AVAILABLE

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (GLOBALLY HARMONIZED SYSTEM)

NO DATA AVAILABLE

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (GLOBALLY HARMONIZED SYSTEM)

NO DATA AVAILABLE

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

SYNERGISTIC EFFECTS

NO DATA AVAILABLE

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

UNITED STATES REGULATORY INFORMATION

NO KNOWN OSHA HAZARDS AT THE PRESENT CONCENTRATIONS

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: NOT CONTROLLED

EU REGULATORY INFORMATION
THIS PRODUCT IS NOT CLASSIFIED ACCORDING TO EU LEGISLATION.

PA AND NJ RIGHT TO KNOW COMPONENTS
FIBRONECTIN CAS#: 86088-83-7

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.

COPYRIGHT 2011 CYTOSKELETON, INC.