

**Cytoskeleton, Inc.**

**MATERIAL SAFETY DATA SHEET**

**SECTION 1. CHEMICAL IDENTIFICATION**

**CATALOG/PRODUCT#:** MG01, MG02, MG03, MG04, MG05, MG06, MG07, MG08

**NAME:** MemGlow™ 488, MemGlow™ 560, MemGlow™ 590, MemGlow™ 640, MemGlow™ 700, MemGlow™ NR4A Membrane Polarity Probe, MemGlow™ NR12A Membrane Polarity Probe, MemGlow™ NR12S Membrane Polarity Probe

**USE:** LABORATORY CHEMICALS

**PROVIDED AS:** <1 milligram lyophilized powder

**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 INFOTRAC DAY OR NIGHT  
WITHIN USA, CANADA, AND PUERTO RICO: 1-800-535-5053  
OUTSIDE USA, CANADA, AND PUERTO RICO: 352-323-35000 (COLLECT CALLS ACCEPTED)

**SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Component</b>	<b>CAS number</b>
MemGlow™ fluorophore	none

**SECTION 3. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

**OSHA HAZARDS**

TOXIC BY INGESTION, IRRITANT

THIS PRODUCT IS CONSIDERED HAZARDOUS BY THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

THIS PRODUCT IS CLASSIFIED AS HAZARDOUS ACCORDING TO DIRECTIVE 67/548/EC AND ASSOCIATED AMENDMENTS.

**POTENTIAL HEALTH EFFECTS**

**INHALATION**

MAY BE HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT IRRITATION

SKIN MAY BE HARMFUL IF ABSORBED THROUGH SKIN.  
CAUSES SKIN IRRITATION  
INGESTION TOXIC IF SWALLOWED  
EYES CAUSES EYE IRRITATION

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

FIRE = 1  
HEALTH = 2  
REACTIVITY = 0

**HMIS RATINGS**

HEALTH = 2  
FIRE = 1  
REACTIVITY = 0

**GHS CLASSIFICATION:**

SIGNAL WORD: DANGER



HAZARD PICTOGRAMS:

ACUTE TOXICITY, CATEGORY 4  
SERIOUS EYE DAMAGE, CATEGORY 1  
CHRONIC AQUATIC TOXICITY, CATEGORY 3  
SPECIFIC TARGET ORGAN TOXICITY -SINGLE EXPOSURE (CATEGORY 3)  
SKIN IRRITATION (CATEGORY 2)

**HEALTH HAZARD STATEMENTS:**

H302: HARMFUL IF SWALLOWED  
H315: CAUSES SKIN IRRITATION  
H318: CAUSES SERIOUS EYE DAMAGE  
H319: CAUSES SERIOUS EYE IRRITATION  
H335: MAY CAUSE RESPIRATORY IRRITATION  
H412: HARMFUL TO AQUATIC LIFE WITH LONG-LASTING EFFECTS

**PRECAUTIONARY STATEMENTS:**

P261: AVOID BREATHING  
DUST/FUMES/GAS/MIST/VAPORS/SPRAY  
P264: WASH SKIN THOROUGHLY AFTER HANDLING  
P270: DO NOT EAT, DRINK OR SMOKE WHEN USING THIS PRODUCT  
P271: USE ONLY IN A WELL-VENTILATED AREA  
P280: WEAR PROTECTIVE GLOVES/EYE PROTECTION/FACE PROTECTION  
P301 + P312: IF SWALLOWED, CALL A POISON CENTER OR PHYSICIAN IF YOU FEEL UNWELL.  
P302 + P352: IF ON SKIN: WSH WITH PLENTY OF SOAP AND WATER.

P304 + P340:	IF INHALED: REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING.
P305+P351+P338:	IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES IF PRESENT AND EASY TO DO. CONTINUE RINSING.
P332 + P313:	IF SKIN IRRITATION OCCURS: GET MEDICAL ADVICE/ATTENTION.
P337 + P313:	IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/ATTENTION.
P362:	TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE REUSE.
P403 + P233:	STORE IN A WELL-VENTILATED PLACE. KEEP CONTAINER TIGHTLY CLOSED.
P405:	STORE LOCKED UP.
P501:	DISPOSE OF CONTENTS/CONTAINER TO AN APPROVED WASTE DISPOSAL PLANT.

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

**AFTER INHALATION:** SUPPLY FRESH AIR. CONSULT PHYSICIAN IN CASE OF COMPLAINTS. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN

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

**AFTER EYE CONTACT:** 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**

##### **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.

**HAZARDOUS COMBUSTION PRODUCTS:** HAZARDOUS DECOMPOSITION PRODUCTS FORMED UNDER FIRE CONDITIONS: CARBON OXIDES, NITROGEN OXIDES (NO<sub>x</sub>), SULPHUR OXIDES, PHOSPHOROUS OXIDES, LITHIUM OXIDES

#### **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 VAPORS, MIST OR GAS. 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:** UPON RECONSTITUTION, ABSORB WITH LIQUID-BINDING MATERIAL (SAND, DIATOMITE, ACID BINDERS, UNIVERSAL BINDERS, SAWDUST). DISPOSE CONTAMINATED MATERIAL AS WASTE ACCORDING TO SECTION 13. ENSURE ADEQUATE VENTILATION. IN LYOPHILIZED FORM, PICK UP WITHOUT CREATING DUST. KEEP IN SUITABLE, CLOSED CONTAINERS FOR DISPOSAL.

**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. AVOID CONTACT WITH SKIN AND EYES. 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

### **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 (EU EN 143) OR TYPE P5 (US)  
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 AND FACE SHIELD

**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 WHEN STORED AS RECOMMENDED.

**THERMAL DECOMPOSITION/CONDITIONS TO BE AVOIDED:** STRONG OXIDIZING AGENTS, STRONG ACIDS

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

**HAZARDOUS COMBUSTION PRODUCTS:** HAZARDOUS DECOMPOSITION PRODUCTS FORMED UNDER FIRE CONDITIONS: CARBON OXIDES, NITROGEN OXIDES (NO<sub>x</sub>), SULPHUR OXIDES, PHOSPHOROUS OXIDES, LITHIUM OXIDES

### **SECTION 11. TOXICOLOGICAL INFORMATION**

## **INFORMATION ON TOXICOLOGICAL EFFECTS**

### **ACUTE TOXICITY**

NO DATA AVAILABLE

### **IRRITATION AND CORROSION**

NO DATA AVAILABLE

### **SENSITIZATION**

NO DATA AVAILABLE

CHRONIC EXPOSURE

**IARC/ACGIH/NTP/OSHA:** NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A CARCINOGEN OR POTENTIAL CARCINOGEN.

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

INHALATION - MAY CAUSE RESPIRATORY IRRITATION

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

NO DATA AVAILABLE

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

### **POTENTIAL HEALTH EFFECTS**

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

## **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.

DISPOSE OF CONTAMINATED PACKAGING 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**

TOXIC BY INGESTION, IRRITANT

##### **DSL STATUS:**

2,3,3-TRIMETHYLINDOLENINE IS ON THE CANADIAN DSL LIST

1,1,2-TRIMETHYL-1H-BENZO[E]INDOLE IS ON THE CANADIAN DSL LIST

5-CHLORO-1-PENTYNE IS ON THE CANADIAN DSL LIST

TRIETHYL ORTHOFORMATE IS ON THE CANADIAN DSL LIST

MALONALDEHYDE DIANILIDE HYDROCHLORIDE IS ON THE CANADIAN DSL LIST

GLUTACONDIANIL HYDROCHLORIDE IS ON THE CANADIAN DSL LIST

GLUTARIC ANHYDRIDE IS ON THE CANADIAN DSL LIST

3-BROMO-1-PROPANOL IS ON THE CANADIAN DSL LIST

1,3-PROPANESULTONE IS ON THE CANADIAN DSL LIST

BORON TRIFLUORIDE ETHERATE IS ON THE CANADIAN DSL LIST

##### **TSCA:**

CAS# 1640-39-7 IS LISTED ON THE TSCA INVENTORY

CAS# 41532-84-7 IS LISTED ON THE TSCA INVENTORY

CAS# 14267-92-6 IS LISTED ON THE TSCA INVENTORY

CAS# 122-51-0 IS LISTED ON THE TSCA INVENTORY

CAS# 50328-50-2 IS LISTED ON THE TSCA INVENTORY

CAS# 1497-49-0 IS LISTED ON THE TSCA INVENTORY

CAS# 108-55-4 IS LISTED ON THE TSCA INVENTORY

CAS# 109-63-7 IS LISTED ON THE TSCA INVENTORY

CAS# 627-18-9 IS LISTED ON THE TSCA INVENTORY

CAS# 1120-71-4 IS LISTED ON THE TSCA INVENTORY

##### **OSHA:**

PROPANE SULTONE IS CONSIDERED HIGHLY HAZARDOUS BY OSHA

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

PROPANE SULTONE

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

PROPANE SULTONE

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

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

NONE

**CALIFORNIA PROP. 65 COMPONENTS**  
PROPANE SULTONE IS LISTED AS CAUSING CANCER

**SAFETY PHRASES:**  
S22: DO NOT BREATHE DUST

**RISK PHRASES:**  
R22: HARMFUL IF SWALLOWED  
R36/37/38: IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN

**HAZARD SYMBOLS:**  
XI

**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 WAS GATHERED BY DILIGENT RESEARCH AND / OR CONTROL AND THE RECOMMENDATIONS ARE BASED ON PRUDENT APPLICATION OF PROFESSIONAL JUDGMENT. THIS INFORMATION SHOULD NOT BE CONSIDERED AS EXHAUSTIVE AND SHOULD ONLY BE USED AS AN INDICATION. ALL PRODUCTS AND MIXTURES CAN PRESENT UNKNOWN HAZARDS AND SHOULD BE USED WITH CAUTION. THE ABOVE INFORMATION 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 2020 CYTOSKELETON, INC.