

SECTION 1: PRODUCT IDENTIFICATION

PRODUCT NAME CREATINE (Monohydrate)

PRODUCT CODE 0835

SUPPLIER MEDISCA Inc.

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EMERGENCY PHONE CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300

NSW Poisons Information Centre: 131 126

National Chemical Emergency Centre 44(0)1235239670

RECOMMENDED USES Manufacturing and Compounding

RESTRICTIONS ON USE Not applicable

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION Skin Irritation (Category 2)
Eye Irritation (Category 2A)

PICTOGRAM



SIGNAL WORD

HAZARD STATEMENT(S)

ADVERSE PHYSIOCHEMICAL, HUMAN HEALTH AND ENVIRONMENTAL EFFECTS

PRECAUTIONARY STATEMENT(S)

Warning

Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.

Repeated exposure may cause skin dryness or cracking.

Prevention Wash thoroughly after handling.

Wear protective gloves.

Wear eye protection/face protection.

Wear protective clothing.



Response IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. If eye irritation persists: Get medical

advice/attention.

Storage Not applicable
Disposal Not applicable

HMIS CLASSIFICATION Health Hazard 1 Flammability 0

Reactivity 0 Personal Protection B

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME N-(Aminoiminomethyl)-N-Methylglycine Monohydrate

BOTANICAL NAME

SYNONYM

Creatine hydrate

CHEMICAL FORMULA

C4H9N3O2.H2O

CHEMICAL FAMILY

CAS NUMBER

6020-87-7

ALTERNATE CAS NUMBER

Not applicable

MOLECULAR WEIGHT 149.1489

 COMPOSITION
 CHEMICAL NAME
 CAS NUMBER
 EC NUMBER
 % BY WEIGHT

 CREATINE (Monohydrate)
 6020-87-7
 611-954-8
 100

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as health hazards and hence require reporting in this section.

SECTION 4: FIRST-AID MEASURES

IN CASE OF EYE CONTACT Flush with copious amounts of water for 15 minutes, separating eyelids with fingers. If irritation persists seek

medical aid.

IN CASE OF SKIN CONTACT Wash with soap & water for 15 minutes. If irritation persists seek medical aid.

IF SWALLOWED Call a physician. Wash out mouth with water. Do not induce vomiting without medical advice.

IF INHALED Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a

physician

MEDICAL ATTENTION AND SPECIAL

TREATMENT

Get emergency medical help.

SYMPTOMS CAUSED BY EXPOSURE Not expected to present a significant hazard under anticipated conditions of normal use.

SECTION 5: FIREFIGHTING MEASURES

SPECIFIC HAZARDS ARISING FROM

THE CHEMICAL

Not applicable

FLAMMABLE PROPERTIES May be combustible at high temperature

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HAZARDOUS COMBUSTION PRODUCTS

Under fire conditions, hazardous fumes will be present.

SUITABLE & UNSUITABLE EXTINGUISHING MEDIA

Small fire: dry chemical, CO₂ or water spray. **Large fire:** dry chemical, CO₂, alcohol resistant foam or water spray. Do not get water inside containers.

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate

ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

METHODS & MATERIAL FOR CONTAINMENT

On land, sweep or shovel into suitable containers. Minimize generation of dust.

CLEANUP PROCEDURE

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear

respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Shut off all sources of ignition. Evacuate the area. If necessary, employ water fog to disperse the vapors. Absorb the matter with compatible vermiculite or other absorbing material. Place in a suitable container and retain for disposal. Ventilate and clean

the affected area. Do not flush into sewerage system or to drains.

REFERENCE TO OTHER SECTIONSSee Section 7 for information on safe handling. See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Do not inhale. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Wash

thoroughly after handling. Store away from incompatible materials, in a well-ventilated area. Eliminate all sources of ignition. Store in accordance with local regulations. Do not store in unlabeled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use

appropriate containment to avoid environmental contamination.

CONDITIONS FOR SAFE STORAGE Store away from incompatible materials, in a well-ventilated area. Eliminate all sources of ignition. Store in

accordance with local regulations. Do not store in unlabeled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid

environmental contamination.

STORAGE CONDITIONS Store in original container, tightly sealed, protected from direct sunlight and moisture.

SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

Chemical Name: CREATINE (Monohydrate) CAS #: 6020-87-7

	Country	Limit value-8 hours		Limit value-Short Term		IDLH	REL	Advisory	Notes
		ppm	mg/m³	ppm	mg/m³				
OSHA	USA	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
ACGIH	USA	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
NIOSH	USA	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
WEEL	USA	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
HSIS	Australia	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
HSE	UK	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
GESTIS	Add Country	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A



N/L = Not listed; N/A = Not Available

PELs are 8-hour TWAs = Limit value - Eight hours

Ceiling or Short-Term TWA = STEL = Limit value - Short term

EXPOSURE GUIDELINES Consult local authorities for provincial or state exposure limits. Particulates not otherwise regulated, respirable

fraction: 5 mg/m3

PERSONAL PROTECTIVE EQUIPMENT Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by WHMIS or OSHA's

eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. **Skin:** Wear appropriate gloves to prevent skin exposure. **Clothing:** Wear appropriate protective clothing to minimize contact with skin. **Respirators:** Follow WHMIS or OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. **Thermal Hazards:** For products representing a

exceeded or if irritation or other symptoms are experienced. **Thermal Hazards:** For products representing a thermal hazard, appropriate Personal Protective Equipment should be used.

SPECIFIC ENGINEERING CONTROLS Adequate mechanical ventilation. Fumehood, eye wash station, and safety shower.

BIOLOGICAL MONITORING

Not available

CONTROL BANDING

Not available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	Solid									
DESCRIPTION	White crystalline powder.									
SOLUBILITY	Sparingly soluble in water.									
ODOR	Odorless to negligible.									
FLAMMABILITY	May be	combustible at high t	emperature							
AUTO-IGNITION TEMPERATURE	> 0	• 800 °C, 1472 F	BOILING POINT	Not available	DECOMPOSITION TEMPERATURE	(296 - 297)°C, (564.8-566.6)°F				
EVAPORATION RATE	N	lot available	EXPLOSIVE LIMIT	Not available	FLASH POINT	290 °C, 554 °F				
log P (OCTANOL-WATER)	N	lot available	LOWER FLAMMABLE/ EXPLOSIVE LIMIT(S)	Not available	MELTING/FREEZING POINT	(296 - 297)°C, (564.8-566.6)°F (decomposes)				
PARTICLE CHARACTERISTICS	N	lot available	OXIDIZING PROPERTY	Not available	рН	6.9 (1%) (20°C)				
RELATIVE DENSITY (WATER = 1)	N	lot available	SPECIFIC GRAVITY	1.33 (25°C)	UPPER FLAMMABLE/ EXPLOSIVE LIMIT(S)	Not available				
VAPOR DENSITY (AIR = 1)	N	lot available	VAPOR PRESSURE	0.0000004 kPa (25°C)	VISCOSITY	Not available				

The physical data presented above are typical values and should not be construed as a specification.

SECTION 10: STABILITY AND REACTIVITY

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REACTIVITY Not established

CHEMICAL STABILITY Stable under recommended storage conditions

INCOMPATIBLE MATERIALS Strong oxidants, strong acids, strong alkalis

HAZARDOUS DECOMPOSITION Toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides and other gases may occur

PRODUCTS

HAZARDOUS POLYMERIZATION Will not occur

POSSIBLITY OF HAZARDOUS Not established

POSSIBLITY OF HAZARDOUS REACTION

CONDITIONS TO AVOID

Moisture, sunlight and extreme temperatures

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY Oral: Rat: LD50: (mg/kg): Not available

Dermal: Rabbit: LD50: (mg/kg): Not available Inhalation: Rat: LC50: (mg /L/4hr): Not available

SKIN CORROSION/IRRITATION Causes skin irritation.

SERIOUS EYE DAMAGE/EYE

IRRITATION

Causes serious eye irritation.

RESPIRATORY SENSITIZATIONDue to lack of data the classification is not possible.

SKIN SENSITIZATIONDue to lack of data the classification is not possible.

Suspected skin sensitiser: CAESAR skin sensitisation model in VEGA (Q)SAR platform predicts that the

chemical isSensitizer (moderate reliability).

GERM CELL MUTAGENICITY Due to lack of data the classification is not possible.

CARCINOGENICITY OSHA CREATINE (Monohydrate) is not listed.

NTP CREATINE (Monohydrate) is not listed.

IARC CREATINE (Monohydrate) is not evaluated.

California This product does not contain any chemicals known to the State of California to cause

Proposition 65 cancer, birth defects, or any other reproductive harm.

ADDITIONAL CARCINOGENICITY

INFORMATION

Due to lack of data the classification is not possible.

REPRODUCTIVE TOXICITY Due to

SPECIFIC TARGET ORGAN TOXICITY -

SINGLE EXPOSURE

Due to lack of data the classification is not possible.

Due to lack of data the classification is not possible.

SPECIFIC TARGET ORGAN TOXICITY -

REPEATED EXPOSURE

Due to lack of data the classification is not possible.

ASPIRATION HAZARDS

Due to lack of data the classification is not possible.

SIGNS AND SYMPTOMS OF

OSURE

EXPOSURE

ROUTES OF EXPOSURE:

Oral

EARLY ONSET SYMPTOMS RELATED TO EXPOSURE:

Not available

DELAYED HEALTH EFFECT FROM EXPOSURE:

Not available

Not expected to present a significant hazard under anticipated conditions of normal use.

POTENTIAL HEALTH EFFECTS Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

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Skin May be harmful if absorbed through skin. Causes skin irritation.

Eyes Causes serious eye irritation.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY EC50: 48 Hr: Crustacea: (mg/L): Not available

LC50: 96 Hr: Fish: (mg/L): Not available

EC50: 72 or 96 Hr: Algae (or other aqua plants): (mg/L): Not available

PERSISTENCE AND DEGRADABILITY

BIOACCUMULATIVE POTENTIAL

Not available

Not available

MOBILITY IN SOIL Water Solubility: 17g/L (20°C)

OTHER ADVERSE EFFECTS Not available

This product is not intended to be released into the environment

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL METHODS Dispose of in accordance with federal / local laws and regulations. Avoid release into the environment.

SECTION 14: TRANSPORT INFORMATION

UN PROPER SHIPPING NAME Not dangerous good

UN NUMBER Not applicable
CLASS Not applicable
PACKING GROUP Not applicable

<u>AUSTRALIA</u>

HAZCHEM Not available

<u>EU</u>

TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE

IBC CODE

Not Listed

ENVIRONMENTAL HAZARDS Not available SPECIAL SHIPPING INFORMATION Not applicable

SECTION 15: REGULATORY INFORMATION

UNITED STATES REGULATIONS

Chemical Name & CAS	CERCLA 40 CFR Part 302.4	SARA (Title III) 40 CFR Part 372.65	EPA 40 CFR Part 355		Right-to-know Pennsylvania New Jersey Massachusetts			California Prop 65
CREATINE (Monohydrate) 6020-87-7	N/L	N/L	N/L	N/L	N/L	N/L	N/L	N/L



N/L = Not Listed; X = Listed

AUSTRALIAN REGULATIONS

Chemical Name & CAS	Poisons and Therapeutic Goods	Therapeutic Goods Act	Code of Practices - Illicit Drug Precursors	Poisons Standard	Work Health and Safety Regulations	Inventory of Industrial Chemcials
CREATINE (Monohydrate) 6020-87-7	N/L	N/L	N/L	N/L	N/L	N/L

N/L = Not Listed

EU REGULATIONS

Chemical Name & CAS	REACH ANNEX XVII	REACH ANNEX XIV	EC 1005/2009	EC 850/2004	EC 1107/2009	PIC - Prior Informed Consent Regulation	EC 2012/18
CREATINE (Monohydrate) 6020-87-7	N/L	N/L	N/L	N/L	N/L	N/L	N/L

N/L = Not Listed; X = Listed

Any EU regulation not listed above is not applicable to this product.

SUBJECT TO INTERNATIONAL

AGREEMENT

Not applicable

SECTION 16: OTHER INFORMATION

REFERENCES

ABBREVIATIONS AND ACRONYMS

Available upon request

ACGIH - American Conference of Governmental Industrial Hygienists; AIHA WEEL - American Industrial Hygiene Association Workplace Environment Exposure Levels; CAESAR - Computer Assisted Evaluation of industrial chemical Substances According to Regulations; CAS - Chemical Abstract Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; EC50 - Effective Concentration, 50%; EPA - Environmental Protection Agency; GHS - Global Harmonized System; HMIS - Hazardous Materials Information System; HSE - Health and Safety Executive; HSIS - Hazardous Substances Information System; IARC - International Agency for Research on Cancer; IDLH - Immediately Dangerous to Life or Health; IRFMN - Ready Biodegradability Model; ISS - Instituto Superiore Sanità; LC50 - Lethal Concentration, 50%; LD50 - Lethal Dose, 50%; MSHA - Mine Safety and Health Administration; NIOSH - National Institute for Occupational Safety and Health; NTP - National Toxicology Program; OSHA PEL - Occupational Safety & Health Administration Permissible Exposure Limits; QSAR - Quantitative Structure-activity relationship; REL - Recommended Exposure Limit; SARA - Superfund Amendments and Reauthorization Act; STEL - Short Term Exposure Limit; TLV - Threshold Limit Value; TWA - Time Weighted Average; WHMIS - Workplace Hazardous Materials Information System

LAST REVISION SUPERSEDES 01/2023

07/2021

For a list of changes to the SDS since the last version, please communicate with MEDISCA at $\underline{www.medisca.com}$



DISCLAIMER

This document was created in accordance with OSHA, Safe Work Australia and WHMIS regulations. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. MEDISCA® shall not be held liable for any damage resulting from handling or from contact with the above product. Recipients of the product must take responsibility for observing existing laws and regulations.

SUPPLEMENTARY INFORMATION

For all country specific requirements not outlined on this Safety Data Sheet, please request Supplementary Page to this Safety Data Sheet.

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