



Material Safety Data Sheet

Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or mixture

Product name : Hyb Buffer Enhancer

Product Number : 4008

Brand : Celemics

Recommended use of the chemical and restrictions on use

Identified uses : For research use only. Not for pharmaceutical, household or other uses

Details of the supplier of the safety data sheet

Company : Celemics. Inc.

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Section 2. HAZARDS IDENTIFICATION

GHS - Classification

Acute toxicity, Oral (Category 4)

Acute toxicity, Inhalation (Category 4)

Acute toxicity, Dermal (Category 4)

Skin corrosion/irritation (Category 1)

Serious eye damage/eye irritation (Category 1)

Long-term (chronic) aquatic hazard (Category 3)

Signal word

Danger

Hazard pictograms



Hazard Statements

- H302** Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention

- P261** Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash the contact area thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

- P301 + P312 + P330** IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.

Storage

- P405** Store locked up.

Disposal

- P501** Dispose of contents and container according to wastes controlact.

Other hazards

No information available

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances/Mixtures

Ingredient name	Usual name	Cas No.	Amount (%)
Guanidinium thiocyanate	Guanidinium thiocyanate		
	Guanidinium rhodanide	593-84-0	>= 65 - < 70
	Guanidinium isothiocyanate		

Guanidine isothiocyanate

There are no additional ingredients present which at their given concentration, are considered to be hazardous to health.

Section 4. FIRST AID MEASURES

Description of first aid measures

Skin contact

Rinse with plenty of water. Immediate medical attention is not required.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Rinse mouth with water. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration or oxygen by trained personnel.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

None.

Section 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media Dry powder Dry sand.

Unsuitable extinguishing media No information available.

Special hazards arising from the substance or mixture

Combustible.

Advice for fire-fighters

Standard procedure for chemical fires.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Always wear recommended Personal Protective Equipment.

Use personal protection equipment.

See section 8 for more detail.

Environmental precautions

No special environmental precautions required.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Section 7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Never allow product to get in contact with water during storage. Do not store near acids.

Light sensitive.

Specific end use(s)

For research use only.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits Contains no substances with occupational exposure limit values.

Engineering measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal protective Equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and Body protection

Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Environmental exposure controls

No special environmental precautions required.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

State	Liquid
Color	Colourless
Odour	No information available
Odour threshold	No information available
pH	No information available
Melting point/freezing point	No information available
Initial boiling point and boiling range	No information available
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Upper/lower flammability or explosive limits	No information available
Vapour pressure	No information available
Vapour density	No information available
Relative density	No information available
Water solubility	No information available
Partition coefficient: n-octanol/ water	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available

Oxidizing properties

No information available

Section 10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No information available.

Conditions to avoid

No information available.

Incompatible products

Strong acids, Strong oxidizing agents, Cyanides.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides, Hydrogen cyanide (hydrocyanic acid), Ammonia.

Other decomposition products - No information available.

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides.

Thermal decomposition

No information available.

Section 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhalation

Harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion

Harmful if swallowed. Causes burns.

Skin

Harmful if absorbed through skin. Causes skin burns.

Aggravated Medical Condition

May cause nervous system disturbances

Principal Routes of Exposure

Skin corrosion/irritation

No information available

Serious eye damage/irritation

No information available

Respiratory or skin sensitization

No information available

Specific target organ toxicity (STOT) - single exposure

No information available

Specific target organ toxicity (STOT) - repeated exposure

No information available

Carcinogenicity

IARC: 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.

Germ cell mutagenicity

No information available

Reproductive toxicity

No information available

Aspiration hazard

No information available

Section 12. ECOLOGICAL INFORMATION

Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Mobility in soil

No information available

Persistence and degradability

No information available

Bioaccumulative potential	No information available
Results of PBT and vPvB assessment	
This mixture does not contain any substances that are assessed to be a PBT or a vPvB.	
Other adverse effect	No information available Harmful to aquatic life with long lasting effects.

Section 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

Section 14. TRANSPORT INFORMATION

IMDG

UN number: 1760 Class: 8 Packing group: III EMS-No: F-A, S-B
Proper shipping name: CORROSIVE LIQUID, N.O.S. (Guanidinium thiocyanate)

IATA

UN number: 1760 Class: 8 Packing group: III
Proper shipping name: Corrosive liquid, n.o.s. (Guanidinium thiocyanate)

Section 15. REGULATORY INFORMATION

Regulation under the Occupational Safety and Health Act

No information available.

Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act

No information available.

Dangerous Substances Safety Management Act

No information available.

Wastes Control Act

Follow article 13 of the act to dispose the product waste.

Regulations of other domestic and international Act

Domestic act

Persistent organic pollutants control Act

No information available

Foreign Act

American supervision information

No information applicable

CERCLA

No information applicable

EPCRA 302

No information applicable

EPCRA 304

No information applicable

EPCRA 313

No information applicable

American supervision information

No information applicable

(Rotterdam agreement material)

American supervision information

No information applicable

(Stockholm agreement material)

American supervision information

No information applicable

(Montreal protocol material)

EU Classification information (Confirmed classification results)	No information applicable
EU Classification information (Danger expression)	No information applicable
EU Classification information (Safety expression)	No information applicable

Section 16. OTHER INFORMATION

Reason for revision	SDS sections updated
Revision number	2
Revision date	18-Nov-2021

For research use only. Not for use in diagnostic procedures.

The information presented above is based on Celemics' state of knowledge at the time of preparation. The information shall not be taken as being all inclusive, and is to be used only as a guide. The information in this MSDS does not represent any guarantee of the properties or fitness for any particular purpose. Since personnel handling this material must make independent determinations of the actual methods and volume, Celemics, Inc. shall not be held liable for any damages resulting from handling or contact with this product.

End of Safety Data Sheet