

SAFETY DATA SHEET

Version 1.0

Revision date: Sep 22, 2026



Endotoxin Removal Buffer ERB

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier:	Endotoxin Removal Buffer ERB
Product code:	ERB (component of kits #NKE112, #NKE212, #NKE112, #NKE113, #NKE213, #NKE113)
Manufacturer's name and address:	Luna Nanotech Inc., 85 Citizen Court, Unit 13 Markham, ON L6G 1A8, Canada
Business telephone number:	1-800-474-4055
Email:	info@lunanano.com
Emergency telephone numbers:	Luna Nanotech Inc. 1-800-474-4055 Available 10:00 a.m. to 6:00 p.m. Eastern Time. This number is not monitored outside these hours.
Product use:	For research use only. Not intended for human or animal diagnostic or therapeutic uses.

SECTION 2: HAZARDS IDENTIFICATION

Ingredients:	Guanidine hydrochloride; Decyl glucoside
CAS #:	50-01-1; 54549-25-6
GHS classification:	Acute toxicity, oral (Category 4); Acute toxicity, inhalation (Category 4) Skin irritation (Category 2); Eye irritation (Category 2A)
Signal word:	Warning
Hazard statements:	
H302 + H332:	Harmful if swallowed or if inhaled.
H315:	Causes skin irritation.
H319:	Causes serious eye irritation.
Precautionary statements:	
P261:	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264:	Wash skin thoroughly after handling.
P270:	Do not eat, drink or smoke when using this product.
P280:	Wear protective gloves and eye protection.
P301 + P312 + P330:	IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
P302 + P352:	IF ON SKIN: Wash with plenty of water.
P304 + P340 + P312:	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
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.
P501:	Dispose of contents/ container to an approved waste disposal plant.
HMIS classification:	
Health hazard:	2
Chronic health hazard:	1
Flammability:	0
Physical hazards:	0
Potential health effects:	
Inhalation:	Harmful if inhaled. May cause respiratory tract irritation.
Skin:	Causes skin irritation. May be harmful if absorbed through skin.
Eyes:	Causes serious eye irritation.
Ingestion:	Harmful if swallowed.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture:	Mixture (aqueous solution)
Hazardous ingredients:	
Chemical name:	Guanidine hydrochloride
CAS number:	50-01-1
EC number:	200-002-3
Concentration:	70 – 80 % w/v (8 M)
Chemical name:	Decyl glucoside
CAS number:	54549-25-6
EC number:	259-218-1
Concentration:	5 % v/v

SECTION 4: FIRST AID MEASURES

General advice:	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
If inhaled:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact:	Wash off with soap and plenty of water. Consult a physician.
In case of eye contact:	Rinse thoroughly with plenty of water for at least 15 minutes, and consult a physician.
If swallowed:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5: FIREFIGHTING MEASURES

Conditions of flammability:	Not flammable or combustible.
Flash point:	Not determined.
Means of extinction:	Use water spray, alcohol-resistant foam, dry chemical, or CO ₂ .
Special protective equipment for firefighters:	Wear self-contained breathing apparatus for firefighting if necessary.
Hazardous combustion products:	Carbon oxides, nitrogen oxides (NO _x), hydrogen chloride gas.
Explosion data:	
Sensitivity to mechanical impact:	Not sensitive.
Sensitivity of static discharge:	Not sensitive.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions:	Use personal protective equipment. Avoid contact with the skin and the eyes. Use personal protective equipment. Ensure adequate ventilation.
Environmental precautions:	Do not let product enter drains.
Methods and materials for containment and cleaning up:	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

SECTION 7. HANDLING AND STORAGE

Handling:	Wear personal protective equipment. Avoid contact with skin and eyes.
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Conditions for safe storage:

Avoid formation of aerosols. Provide appropriate exhaust ventilation. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature (15 – 25 °C). Precipitate may form at low temperature; re-dissolve by warming to 37 °C.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection:

If exposure limits are exceeded or irritation is experienced, respiratory protection approved under NIOSH/MSHA must be worn. For high airborne contaminant concentration positive-pressure supplied air respirators may be required.

Eye protection:

Wear safety glasses with side shields conforming to EN166. Avoid contact with the eyes.

Skin and body protection:

Wear protective gloves and clothing.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

Specific engineering controls:

Use appropriate mechanical exhaust or laboratory fume hood to avoid exposure.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Liquid

Color:

Clear, colorless

Odor:

Not available

Taste:

Not available

pH:

Not available

Boiling point:

Not available

Melting point:

Not available

Flash point:

Not available

Evaporation rate:

Not available

Explosion limits:

Not available

Specific gravity:

Not available

Vapor pressure:

Not available

Vapor density:

Not available

Volatility:

Not available

Solubility in water:

Miscible

Solubility in other solvents:

Not available

Thermal decomposition:

Not available

Viscosity:

Not available

SECTION 10: STABILITY AND REACTIVITY

Stability:

Stable under recommended storage conditions.

Incompatible products:

Strong oxidizing agents. Do not mix with bleach (sodium hypochlorite) or acids; guanidine salts can react with bleach to form hazardous compounds.

Conditions to avoid:

Not available.

Hazardous decomposition products:

Under fire conditions: carbon oxides, nitrogen oxides, hydrogen chloride gas.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity (ingredient:

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Guanidine hydrochloride):

LD50 oral rat:	1,120 mg/kg
LD50 dermal rabbit:	2,000 mg/kg
Skin corrosion/irritation:	Causes skin irritation.
Serious eye damage/eye irritation:	Causes serious eye irritation.
Respiratory or skin sensitization:	Not available.
Germ cell mutagenicity:	Not available.
Carcinogenicity:	Not listed by IARC, NTP, ACGIH or OSHA.
Reproductive toxicity:	Not available.
STOT-single exposure:	Not available.
STOT-repeated exposure:	Not available.
Aspiration toxicity:	Not available.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:	Harmful to aquatic organisms.
Toxicity to fish (Guanidine hydrochloride):	LC50 <i>Leuciscus idus</i> (Golden orfe) – 1,759 mg/L
Persistence and degradability:	Guanidine hydrochloride: not readily biodegradable. Decyl glucoside: readily biodegradable.

SECTION 13: DISPOSAL CONSIDERATIONS

Product:	The product should not be allowed to enter drains, watercourses or the soil. Disposing should be performed in compliance with local and national regulation by a licensed waste management company.
Contaminated packaging:	Dispose of as unused product. Do not reuse empty containers.

SECTION 14: TRANSPORT INFORMATION

DOT (US):	Not regulated as dangerous good.
UNRTG:	Not regulated as dangerous good.
IATA:	Not regulated as dangerous good.
IMDG:	Not regulated as dangerous good.

SECTION 15: REGULATORY INFORMATION

Not controlled or listed.

SECTION 16: OTHER INFORMATION

The above information provided in this Materials Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of publication. The information given is designed only as a guidance for safe handling, processing, use, transportation, storage, disposal and release. This information is not to be considered a

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warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet