

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS: Haven Scientific Biochemistry department Al-Marsad St, King Abdulaziz University, Jeddah 21589

EMERGENCY TELEPHONE NUMBERS: (966) 59 121-4477

PRODUCT NAME : Lysis buffer

PRODUCT CODE : RE95011 – RE95051 – RE95251

PRODUCT USE : For research use only. Not intended for human or animal diagnostic uses.

SECTION 2 - HAZARDS IDENTIFICATION SUMMARY

INGREDIENTS: Guanidine Hydrochloride

CAS: 50-01-1

GHS CLASSIFICATION

Acute toxicity (Oral): Category 4

Skin irritant: Category 2

Eye irritant: Category 2



SIGNAL WORD: Warning

HAZARD STATEMENTS:

H302 + H332: Harmful if swallowed/ 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.



SAFETY DATA SHEET

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: *

Flammability: 0

Physical hazards: 0

*Potential health effects

Inhalation: Toxic if inhaled. Causes respiratory tract irritation.

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

Eyes: Causes eye irritation.

Ingestion: Toxic if swallowed.

SECTION 3 - COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS NUMBER	EC NUMBER
Guanidine Hydrochloride	undisclosed	50-01-1	200-002-3

SECTION 4 - FIRST AID MEASURES

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

IF SWALLOWED: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

IF ON SKIN: Wash off with soap and plenty of water. Consult a physician.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF INHALED: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5 - FIRE FIGHTING MEASURES

CONDITIONS OF FLAMMABILITY: Not Flammable or combustible

FLASHPOINT: Not determined

EXTICTION MEAN: Use water spray, alcohol-resistant foam, dry chemical or CO₂.

FIRE AND EXPLOSION HAZARD: Not sensitive to mechanical impact or static discharge

FIRE FIGHTING EQUIPMENT: Wear self-contained breathing apparatus for firefighting if necessary

HAZARDOUS DECOMPOSITION PRODUCTS FORMED UNDER FIRE CONDITIONS: Carbon oxides, Nitrogen oxides (NO_x), Hydrogen chloride gas.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILLS OR LEAKS: 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.

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.

SECTION 7 - HANDLING AND STORAGE

HANDLING: Wear personal protective equipment. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

STORAGE: Keep container tightly closed in a dry and well-ventilated place.

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

Odor: Characteristic

pH: 7

Melting Point: Not available

Boiling Point: Not available

Flash Point: Not available

Evaporation Rate: Not available

Flammability: Not available

Vapor Pressure: Not available

Vapor Density: Not available

Special gravity: 1.09 g/cm³

Solubility: Not available

Decomposition Temperature: Not available

Viscosity: Not available

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: Stable under recommended storage conditions

CONDITIONS TO AVOID: Not available.

INCOMPATIBLE MATERIALS: Strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS:

Under fire conditions: Carbon oxides, nitrogen oxides, hydrogen chloride gas

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute toxicity data from similar formulation

ACUTE TOXICITY:

PRODUCT:

Acute oral toxicity: Not available

Acute inhalation toxicity: Not available

Acute dermal toxicity: Not available

INGREDIENTS:

LD50 Guanidine HCl - Oral: (Rat) = 475 mg/kg

LD50 Guanidine HCl - Oral: (Mouse) = 571 mg/kg

LD50 Guanidine HCl - Inhalation: (Rat) = 3.181 mg/L, 4 h

SKIN CORROSION / IRRITATION:

Product: Corrosive and destructive to tissue. Causes skin burns.

SERIOUS EYE DAMAGE / EYE IRRITATION

Product: Respiratory or skin sensitization: May cause irreversible eye damage.

GERM CELL MUTAGENICITY: Not available

CARCINOGENICITY: Not available

REPRODUCTIVE TOXICITY: Not available

STOT-SINGE EXPOSURE: Not available

STOT-REPEATED EXPOSURE: Not available

ASPIRATION TOXICITY: Not available

FURTHER INFORMATION: Not available

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY: Harmful to aquatic organisms.

TOXICITY TO FISH: Leuciscus idus (Golden orfe) – 1,759 mg/L

PERSISTENCE AND DEGRADABILITY: Not 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

WHMIS CLASSIFICATION:

D1B: Toxic Material Causing Immediate and Serious Toxic Effects: Toxic by injection

D2B: Toxic Material Causing Other Toxic Effects: Moderate skin irritant - Moderate eye irritant

SECTION 16 - OTHER INFORMATION

The above information contained in this Material Safety Data Sheet is correct to the best of our knowledge and belief at the date of publication. The information provided is only designed as a guide for safe handling, handling, use, transportation, storage, disposal and release. This information is not to be considered a guarantee or a quality specification. The information relates only to the specific materials and may not be valid for such materials used with any other materials or in any process, unless stated so in the text.

END OF SAFETY DATA SHEET