

# MATERIAL SAFETY DATA SHEET

## Chemical Product

Product Name: L-ADRENALINE

CAS#: 51-43-4

Synonym: Epinephrine

Chemical Name:

Chemical Formula: C<sub>9</sub>H<sub>13</sub>NO<sub>3</sub>

## Composition and Information on Ingredients

Name	S.K.U	% by Weight
L-ADRENALINE	GCS-4637	100

## Hazards Identification

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

Toxic by inhalation, in contact with skin and if swallowed.

## First Aid Measures

### Description of first aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

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. Take victim immediately to hospital. Consult a physician.

In case of eye contact: Flush eyes with water as a precaution.

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

Most important symptoms and effects, both acute and delayed: Laboratory experiments in animals have shown fetotoxic results.

### Indication of any immediate medical attention and special treatment needed

no data available

## Fire and Explosion Data

### Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Special hazards arising from the substance or mixture: Carbon oxides, nitrogen oxides (NOx) Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Further information: no data available

## Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## Handling and Storage

### Precautions for safe handling:

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection

### Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 2 - 8 °C. Light sensitive. Store under inert gas. Air sensitive.

## Exposure Controls/Personal Protection

### Control parameters

Components with workplace  
control parameters Exposure  
controls

Appropriate engineering controls: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

### Personal protective equipment

**Eye/face protection:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin 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 EU Directive 89/686/EEC and the standard EN 374 derived from it.

**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.

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) 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).

## Physical and Chemical Properties

Physical state and appearance: Crystalline

Odor : Not available.

Taste : Not available.

Molecular Weight : 183.21 g/mole

Color : beige.

pH (1% soln/water) : Not available.

Boiling Point : Not available.

Melting Point : 215 °C

Critical Temperature : Not available.

Specific Gravity : Not available.

Vapor Pressure : Not applicable.

Vapor Density : Not available.

Volatility : Not available.

Odor Threshold : Not available.

Water/Oil Dist. Coeff. : Not available.

Ionicity (in Water) : Not available.

Dispersion Properties : Not available.

Solubility : Not available.

## Stability and Reactivity Data

Reactivity: Not available.

Chemical stability: Not available.

Possibility of hazardous reactions: Not available.  
Conditions to avoid: Not available.  
Incompatible materials: Not available.  
Hazardous decomposition products: Other decomposition products - Not available.

## Toxicological Information

Information on  
toxicological effects

Acute toxicity: LD50

Dermal - rat - 62 mg/kg

Remarks: Behavioral:Somnolence (general depressed activity).

Behavioral:Convulsions or effect on seizure threshold. Behavioral:Excitement.

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation:

no data available Respiratory or

skin sensitization: no data

available Germ cell mutagenicity:

no data 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.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no  
data available Specific target organ toxicity - repeated  
exposure: no data available Aspiration hazard: no  
data available

### Potential health effects

- Inhalation Toxic if inhaled. May cause respiratory tract irritation.
- Ingestion Toxic if swallowed.
- Skin May be fatal if absorbed through skin. May cause skin irritation.
- Eyes May cause eye irritation.

Signs and Symptoms of Exposure: Laboratory experiments in animals have shown fetotoxic results.

## Ecological Information

Toxicity: no data available

Persistence and degradability:

no data available

Bioaccumulative potential: no data available  
 Mobility in soil: no data available  
 Results of PBT and vPvB assessment: no data available  
 Other adverse effects: no data available

## Disposal Considerations

### Waste treatment methods

Product: Offer surplus and non-recyclable solutions to a licensed disposal company.  
 Contact a licensed professional waste disposal service to dispose of this material.  
 Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

### Contaminated packaging

Dispose of as unused product.

## Transformation Information

### Land transport (ADR-RID)

Proper shipping name : TOXIC SOLID, ORGANIC, N.O.S.  
 UN N° 2811  
**H.I. nr 60**  
**ADR – Class : 6.1**

### Sea transport (IMDG) [English only]

Proper shipping name : TOXIC SOLID, ORGANIC, N.O.S.  
 UN N° 2811  
 IMO-IMDG - Class or division : 6.1: Toxic substances.  
**IMO-IMDG - Packing group II**

### Air transport (ICAO-IATA) [English only]

Proper shipping name : TOXIC SOLID, ORGANIC, N.O.S.  
 UN N° 2811  
 IATA - Class or division : 6.1: Toxic substances.  
**IATA - Packing group I**

## Other Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006. Safety, health and environmental

regulations/legislation specific for the substance or mixture no data available  
Chemical Safety Assessment: no data available

### **Additional Information**



References: Not available.

Other Special Considerations: Not available.

## ***Disclaimer:***

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