# SAFETY DATA SHEET

Version: v1 Revision Date: 2024-06-13 Print Date: 2024-06-13

# SECTION 1:Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name	: Melphalan
Product Number	: M191037
Brand	: aladdin
CAS-No.	: 148-82-3

# 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	: Laboratory chemicals, Manufacture of sub	stances.

#### 1.3 Company

Company	: ALADDIN SCIENTIFIC CORPORATION
Address	: 14078 Meridian Parkway,
Riverside, CA. 92518	
Telephone	: +1 (833) 552-7181
Fax	: no data available

#### 1.4 Emergency telephone number

CHEMTREC®, Inside the USA	: 1-800-424-9300
CHEMTREC®, Outside the USA	:

# **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Acute toxicity, Oral (Category 2), H300 Skin corrosion/irritation (Category 3), H316 skin sensitization (Category 1), H317 Germ cell mutagenicity (Category 1B), H340 Carcinogenicity (Category 1A), H350 Reproductive toxicity (Category 2), H361

### 2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word Hazard statement(s)



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H300	Fatal if swallowed
H310	Fatal in contact with skin
H330	Fatal if inhaled
H350	May cause cancer
H361	Suspected of damaging fertility or the unborn child
Precautionary statement(s)	
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P262	Do not get in eyes, on skin, or on clothing.
P264	Wash hands [and] thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	[In case of inadequate ventilation] Wear respiratory protection.
P320	Specific treatment is urgent (see on this label).
P330	Rinse mouth.
P302+P352	IF ON SKIN: wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

# **SECTION 3: Composition/information on ingredients**

# 3.1 Substances

Synonyms [Bis(2-chloroethyl)amino]-L-phen	: 4-[Bis(2-Chloroethyl)amino]-L-phenylalanine;L-Phenylalanine mustard;4- ylalanine;L-PAM
Formula	: C13H18Cl2N2O2
Molecular weight	: 305.2
CAS No.	: 148-82-3
EC-NO.	: no data available

Component	Classification	Concentration
Melphalan		
	Acute toxicity Category 2; Skin corrosion/irritation Category 3; Skin sensitization Category 1; Germ cell mutagenicity Category 1B; Carcinogenicity Category 1A; Reproductive toxicity Category 2; H300, H316, H317, H340, H350, H361	90%

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#### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

General advice

Consult a physician. Show this material 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.

#### 4.2 Most important symptoms and effects, both acute and delayed

no data available

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

no data available

### **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Unsuitable extinguishing media no data available

#### 5.2 Special hazards arising from the substance or mixture

Carbon oxides Nitrogen oxides (NOx) Hydrogen chloride gas

#### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

# 5.4 Further information

no data available

# SECTION 6: Accidental release measures

# 6.1 Personal precautions, protective equipment and emergency procedures

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.

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#### 6.2 Environmental precautions

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

#### 6.3 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.

#### 6.4 Reference to other sections

For disposal see section 13.

#### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Advice on safe handling Avoid exposure - obtain special instructions before use.

#### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated  $place_{\circ}$ 

#### 7.3 Specific end use(s)

no data available

#### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

#### 8.2 Exposure controls

Appropriate engineering controls

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

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 Regulation (EU)2016/425 and the standard EN 374 derived from it.

**Body Protection** 

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

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Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface 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). Control of environmental exposure

If it is safe, prevent further leakage or spillage and do not allow the product to enter the sewer system.

### **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

a) Appearance	no data available
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	no data available
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or	
explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	no data available
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

#### 9.2 Other safety information

no data available

# **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

no data available

#### 10.2 Chemical stability

Stable under recommended storage conditions.

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#### 10.3 Possibility of hazardous reactions

no data available

- 10.4 Conditions to avoid
- 10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products no data available

# SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity no data available Skin corrosion/irritation no data available Serious eye damage/eye irritation no data available Respiratory or skin sensitisation no data available Germ cell mutagenicity no data available Carcinogenicity no data available 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 Additional Information To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

# **SECTION 12: Ecological information**

# 12.1 Toxicity

no data available

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#### 12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment no data available

#### 12.6 Other adverse effects

no data available

#### SECTION 13:

#### 13.1 Disposal considerations

Product

Recycle to process, if possible. Consult your local regional authorities and an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur. Observe all federal, state and local regulations when disposing of the substance. Contaminated packaging

Dispose of as unused product.

# SECTION 14: Transport information

DOT (US)		
UN number: 2811	Packing group: II	Class: 6.1
Proper shipping name: TOXIC SOLID,	Reportable Quantity(RQ): no data	Poison Inhalation Hazard: no data
ORGANIC, N.O.S	available	available
Environmental Hazards: no		
IMDG		
UN number: 2811	Packing group: II	EMS-No: no data available
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S		
ΙΑΤΑ		
UN number: 2811	Packing group: II	Class: 6.1
Proper shipping name: TOXIC SOLID, (	DRGANIC, N.O.S	

#### **SECTION 15: Regulatory information**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

# **SECTION 16: Other information**

Prepared By	Regulatory Affairs ALADDIN SCIENTIFIC CORPORATION Email: QualityAssurance@aladdinsci.com
Creation Date	10-Sep-2020
Revision Date	13-Jun-2024
Print Date	13-Jun-2024
Revision Summary	SDS sections updated v1
Refference	

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