SAFETY DATA SHEET

Version: v1 Revision Date: 2024-06-25 Print Date: 2024-06-27

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

1.1 Product identifiers

Free Radical

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

Identified uses	:	Laborator	y chemicals,Manufacture of substances
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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) Serious eye damage/eye irritation[Category 2A]

Specific target organ toxicity (single exposure) [Category 3]

2.2 GHS Label elements, including precautionary statements

Pictogram

Warning

Signal word	Warning	
Hazard statement(s)		
H319	Causes serious eye irritation	
H335	May cause respiratory irritation	

Precautionary statement(s)



P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands [and] thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: 4-Amino-TEMPO Free Radical;4-Amino-2,2,6,6-tetramethylpiperidinooxy,
free radical	
Formula	: C9H19N2O
Molecular weight	: 171.26
CAS No.	: 14691-88-4
EC-NO.	: no data available

ComponentClassificationConcentration4-Amino-2,2,6,6-
tetramethylpiperidine 1-OxylFree RadicalFree Radical

no data available

>97.0%(GC)

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Immediate medical attention is required.

If inhaled

Transfer to fresh air and call a doctor or poison control center immediately. If not breathing, give artificial respiration. If breathing is difficult, take oxygen.

In case of skin contact

Need immediate medical attention. Wash immediately with soap and plenty of water, and remove all contaminated clothing and shoes at the same time. If skin irritation persists, call your doctor.

In case of eye contact

Need immediate medical attention. Rinse immediately with plenty of water and also under the eyelids for at least 15 minutes. Keep your eyes open while flushing.

If swallowed

Do not induce vomiting. Clean your mouth with water, then drink plenty of water. Call your doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section

11

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 Water,Foam,Carbon dioxide (CO2),Dry powder Unsuitable extinguishing media no data available

5.2 Special hazards arising from the substance or mixture

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.

5.3 Advice for firefighters

Wear self-contained breathing and full protective equipment

5.4 Further information

no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional Ecological Information.

6.3 Methods and materials for containment and cleaning up

If safe, prevent further leakage or spillage. Lift it mechanically and place it in a suitable container for disposal. Thoroughly clean contaminated surfaces. Use personal protective equipment as needed. Cover the powder spillage with plastic cloth or waterproof cloth to minimize diffusion and keep the powder dry. Avoid dust generation. After cleaning, wash away traces with water.

6.4 Reference to other sections

For disposal see section 13.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation, especially in confined areas. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers. Protect from moisture. Store at -20 °C.

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 EN166(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.

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 safety requires, prevent further leakage or spillage. Do not let the product enter the sewer.

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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	0°C
f) Initial boiling point and boiling range	98°C
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.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Exposure to air or moisture over prolonged periods.

10.5 Incompatible materials



Incompatible with strong acids and bases. Incompatible with oxidizing agents.

10.6 Hazardous decomposition products

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbonoxides. Nitrogen oxides (NOx).

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 no data available

SECTION 12: Ecological information

12.1 Toxicity

no data available

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

Disposal should be in accordance with applicable regional, national and local laws and regulations. Contaminated packaging Dispose of as unused product.

SECTION 14: Transport information

DOT (US)			
UN number: no data available	Packing group: no data available	Class: no data available	
Proper shipping name: no data	Reportable Quantity(RQ): no data	Poison Inhalation Hazard: no data	
available	available	available	
Environmental Hazards: no data available			
IMDG			
UN number: no data available	Packing group: no data available	EMS-No: no data available	
Proper shipping name: no data available			
ΙΑΤΑ			
UN number: no data available	Packing group: no data available	Class: no data available	
Proper shipping name: no data avail	able		

SECTION 15: Regulatory information

Please note that waste disposal should also meet local regulations. If applicable, the chemical meets the requirements of the Regulations on the Safety Management of Hazardous Chemicals (adopted by the State Council on December 4, 2013).

SECTION 16: Other information

	Regulatory Affairs
Prepared By	ALADDIN SCIENTIFIC CORPORATION
	Email: QualityAssurance@aladdinsci.com
Creation Date	06-Dec-2022
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