

SAFETY DATA SHEET

Version: v1

Revision Date: 2025-09-15

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

1.1 Product identifiers

Product name	: Cobalt solution
Product Number	: C140767
Brand	: aladdin
CAS-No.	: 7440-48-4

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

Identified uses	: Laboratory 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)

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H317	May cause an allergic skin reaction
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H341	Suspected of causing genetic defects
H350	May cause cancer
H360F	May damage fertility
H413	May cause long lasting harmful effects to aquatic life

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Precautionary statement(s)

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P284	[In case of inadequate ventilation] Wear respiratory protection.
P321	Specific treatment (see ... on this label).
P302+P352	IF ON SKIN: wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P333+P313	IF SKIN irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant.
P203	Obtain, read and follow all safety instructions before use.
P318	if exposed or concerned, get medical advice.
P342+P316	If experiencing respiratory symptoms: Get emergency medical help immediately.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS**SECTION 3: Composition/information on ingredients****3.1 Substances**

Synonyms	: no data available
Formula	: Co
Molecular weight	: 58.93
CAS No.	: 7440-48-4
EC-NO.	: 231-158-0

Component	Classification	Concentration
Cobalt solution	no data available	analytical standard, 85.0µg/L, in 1% HNO ₃

SECTION 4: First aid measures**4.1 Description of first aid measures**

General advice
no data available

If inhaled

no data available

In case of skin contact

no data available

In case of eye contact

no data available

If swallowed

no data available

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**Water, Foam, Carbon dioxide (CO₂), Dry powder**Unsuitable extinguishing media**

no data available

5.2 Special hazards arising from the substance or mixture

no data available

5.3 Advice for firefighters

no data available

5.4 Further information

no data available

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

It is recommended that emergency responders wear air-carrying respirators, anti-static clothing, and rubber oil-resistant gloves. Do not touch or step over spillage. All equipment used during work should be grounded. Cut off sources of leaks as much as possible. Eliminate all ignition sources. The warning area is delineated according to the influence area of liquid flow, vapor or dust diffusion, and unrelated personnel are evacuated to the safe area from the crosswind and upwind directions.

6.2 Environmental precautions

no data available

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

No data available

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool place. Keep the container tightly closed and store in a dry and ventilated place. Sensitive to air. Inflation handling and storage

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

no data available

Skin protection

Gloves must be checked before use. Please use proper methods to remove the gloves (do not touch the outer surface of the gloves), and avoid any skin parts contacting the product. After use, please handle the contaminated gloves carefully according to relevant laws and regulations and effective laboratory rules and procedures. Please clean and blow dry the protective gloves selected for your hands must meet the specifications given in regulation (EU) 2016 / 425 and the en 374 standard derived from it.

Body Protection

no data available

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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

no data available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	form: piece color: light gray
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	1,493 - 1,495 °C (2,719 - 2,723 °F)
f) Initial boiling point and boiling range	2,900 °C (5,252 °F) - lit.
g) Flash point	not applicable
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	8.9 g/mL at 25 °C (77 °F)
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	log Pow: 5
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

no data available

10.5 Incompatible materials

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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

May cause eye irritation.

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

This product is or contains components classified as carcinogens by IARC, ACGIH, EPA, and NTP 2B-Group 2B:
Possibly carcinogenic to humans (Cobalt) 2A-Group 2A: Possibly carcinogenic to humans (Cobalt) 2B-Group 2A:
Possibly carcinogenic to humans (Cobalt) 2B Group 2B: Possibly carcinogenic to humans (Cobalt) 8 102B - Group 2B:
Possibly carcinogenic to humans (Cobalt) 2A - Group 2A: Possibly carcinogenic to humans (Cobalt) 2B - Group 2B:
Possibly carcinogenic to humans (Cobalt))

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

LC50 for fish - Danio rerio (zebrafish) - 100.01 mg/l- 96 h

12.2 Persistence and degradability

No data available

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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: 3089

Packing group: II

Class: 4.1

Proper shipping name: METAL
POWDER, FLAMMABLE, N.O.S.Reportable Quantity(RQ): no data
available

Poison Inhalation Hazard: No

Environmental Hazards: No

IMDG

UN number: 3089

Packing group: II

EMS-No: No

Proper shipping name: METAL POWDER, FLAMMABLE, N.O.S.

IATA

UN number: 3089

Packing group: II

Class: 4.1

Proper shipping name: METAL POWDER, FLAMMABLE, N.O.S.

SECTION 15: Regulatory information

no data available

SECTION 16: Other information

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SDS sections updated v1

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