

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

1.1 Product identifier
Trade name **Cobalt (II) sulfamate**
Stock number: 43906
CAS Number: 14017-41-5

1.2 Relevant identified uses of the substance or mixture and uses advised against.
Identified use: SU24 Scientific research and development

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier: Alfa Aesar GmbH & Co.KG
A Johnson Matthey Company
Zeppelinstr. 7b
76185 Karlsruhe / Germany
Tel: +49 (0) 721 84007 280
Fax: +49 (0) 721 84007 300
Email: tech@alfa.com
www.alfa.com

Informing department: Product safety Tel + +049 (0) 7275 988687-0
1.4 Emergency telephone number: Carechem 24: +44 (0) 1235 239 670 (Multi-language emergency number)
Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telephone: +49(0)6131/19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008



GHS08 health hazard

Muta. 2 H341 Suspected of causing genetic defects.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xn; Harmful

R68: Possible risk of irreversible effects.

Xi; Sensitising

R43: May cause sensitisation by skin contact.

Information concerning particular hazards**for human and environment:**
Other hazards that do not result in

Not applicable

classification

No information known.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

Signal word

Hazard statements

Precautionary statements

The substance is classified and labelled according to the CLP regulation.

GHS07, GHS08

Warning

H317 May cause an allergic skin reaction.

H341 Suspected of causing genetic defects.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P321 Specific treatment (see on this label).

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

SECTION 3: Composition/information on ingredients**3.1 Substances**

CAS# Designation: 14017-41-5 Cobalt (II) sulfamate

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

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

Seek immediate medical advice.

Instantly wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

Rinse opened eye for several minutes under running water. Then consult doctor.

Seek medical treatment.

After skin contact**After eye contact****After swallowing****4.2 Most important symptoms and effects,****both acute and delayed**

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing agents

CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.**5.2 Special hazards arising from the substance or mixture**

If this product is involved in a fire, the following can be released:

Toxic metal oxide smoke

Sulphur oxides (SO_x)Nitrogen oxides (NO_x)**5.3 Advice for firefighters**

Protective equipment:

Wear self-contained breathing apparatus.

Wear full protective suit.

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

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Safety data sheet
according to 1907/2006/EC, Article 31

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6.2 Environmental precautions:	Do not allow material to be released to the environment without proper governmental permits. Do not allow product to reach sewage system or water bodies. Do not allow to enter the ground/soil.	(Contd. of page 1)
6.3 Methods and material for containment and cleaning up:	Dispose of contaminated material as waste according to item 13. No special measures required.	
Prevention of secondary hazards:	See Section 7 for information on safe handling	
6.4 Reference to other sections	See section 8 for information on personal protection equipment. See Section 13 for information on disposal.	

SECTION 7: Handling and storage

7.1 Precautions for safe handling	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace.
Information about protection against explosions and fires:	No information known.
7.2 Conditions for safe storage, including any incompatibilities	
Storage Requirements to be met by storerooms and containers:	No special requirements.
Information about storage in one common storage facility:	Store away from oxidizing agents.
Further information about storage conditions:	Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.
7.3 Specific end use(s)	No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical systems:	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.																																																									
8.1 Control parameters																																																										
Components with critical values that require monitoring at the workplace:	Cobalt, elemental & inorganic compounds, as Co																																																									
	<table border="0"> <tr> <td></td> <td align="center">mg/m³</td> <td></td> </tr> <tr> <td>ACGIH TLV</td> <td>0.02;</td> <td>Confirmed animal carcinogen</td> </tr> <tr> <td>Austria</td> <td></td> <td>Carcinogen</td> </tr> <tr> <td>Belgium TWA</td> <td>0.05</td> <td></td> </tr> <tr> <td>Denmark TWA</td> <td>0.05</td> <td></td> </tr> <tr> <td>Finland TWA</td> <td>0.05 (skin)</td> <td></td> </tr> <tr> <td>Germany</td> <td></td> <td>Carcinogen</td> </tr> <tr> <td>Hungary TWA</td> <td>0.1; 0.2-STEL</td> <td></td> </tr> <tr> <td>Japan OEL</td> <td>0.05; 2B-Carcinogen</td> <td></td> </tr> <tr> <td>Korea TLV</td> <td>0.02;</td> <td>Confirmed animal carcinogen</td> </tr> <tr> <td>Netherlands MAC-TGG</td> <td>0.05</td> <td></td> </tr> <tr> <td>Norway TWA</td> <td>0.05</td> <td></td> </tr> <tr> <td>Poland TWA</td> <td>0.05; 0.2-STEL</td> <td></td> </tr> <tr> <td>Russia</td> <td>0.5-STEL</td> <td></td> </tr> <tr> <td>Sweden NGV</td> <td>0.05</td> <td></td> </tr> <tr> <td>Switzerland MAK-W</td> <td>0.1; Carcinogen</td> <td></td> </tr> <tr> <td>United Kingdom TWA</td> <td>0.1</td> <td></td> </tr> <tr> <td>USA PEL</td> <td>0.1 (dust and fume)</td> <td></td> </tr> <tr> <td></td> <td></td> <td>No data</td> </tr> </table>		mg/m ³		ACGIH TLV	0.02;	Confirmed animal carcinogen	Austria		Carcinogen	Belgium TWA	0.05		Denmark TWA	0.05		Finland TWA	0.05 (skin)		Germany		Carcinogen	Hungary TWA	0.1; 0.2-STEL		Japan OEL	0.05; 2B-Carcinogen		Korea TLV	0.02;	Confirmed animal carcinogen	Netherlands MAC-TGG	0.05		Norway TWA	0.05		Poland TWA	0.05; 0.2-STEL		Russia	0.5-STEL		Sweden NGV	0.05		Switzerland MAK-W	0.1; Carcinogen		United Kingdom TWA	0.1		USA PEL	0.1 (dust and fume)				No data
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8.2 Exposure controls																																																										
Personal protective equipment																																																										
General protective and hygienic measures	The usual precautionary measures should be adhered to in handling the chemicals. Keep away from foodstuffs, beverages and food. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work. Maintain an ergonomically appropriate working environment.																																																									
Breathing equipment:	Use breathing protection with high concentrations.																																																									
Protection of hands:	Check protective gloves prior to each use for their proper condition. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.																																																									
Material of gloves	Impervious gloves																																																									
Penetration time of glove material	Not determined																																																									
Eye protection:	Safety glasses																																																									
Body protection:	Face protection Protective work clothing.																																																									

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Information	
Appearance:	
Form:	Powder
Smell:	Odourless
Odour threshold:	Not determined.
pH-value:	Not applicable.
Change in condition	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined
Flash point:	Not applicable
Inflammability (solid, gaseous)	Not determined.
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Self-inflammability:	Not determined.
Danger of explosion:	Product is not explosive.
Critical values for explosion:	
Lower:	Not determined

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Upper:	Not determined
Steam pressure:	Not applicable.
Density	Not determined
Relative density	Not determined.
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with Water:	Not determined
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
dynamic:	Not applicable.
kinematic:	Not applicable.
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity	No information known.
10.2 Chemical stability	Stable under recommended storage conditions.
Thermal decomposition / conditions to be avoided:	No decomposition if used and stored according to specifications.
10.3 Possibility of hazardous reactions	No dangerous reactions known
10.5 Incompatible materials:	Oxidizing agents
10.6 Hazardous decomposition products:	Toxic metal oxide smoke Sulphur oxides (SO _x) Nitrogen oxides (NO _x)

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute toxicity:	No effects known.
LD/LC50 values that are relevant for classification:	No data
Skin irritation or corrosion:	Irritant for skin and mucous membranes.
Eye irritation or corrosion:	Irritant effect.
Sensitization:	May cause an allergic skin reaction.
Germ cell mutagenicity:	Suspected of causing genetic defects.
Carcinogenicity:	IARC-2B: Possibly carcinogenic to humans: limited evidence in humans in the absence of sufficient evidence in experimental animals. ACGIH A3: Animal carcinogen: Agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) not considered relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence suggests that the agent is not likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.
Reproductive toxicity:	No effects known.
Specific target organ system toxicity - repeated exposure:	No effects known.
Specific target organ system toxicity - single exposure:	No effects known.
Aspiration hazard:	No effects known.
Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

SECTION 12: Ecological information

12.1 Toxicity	
Aquatic toxicity:	No further relevant information available.
12.2 Persistence and degradability	No further relevant information available.
12.3 Bioaccumulative potential	No further relevant information available.
12.4 Mobility in soil	No further relevant information available.
Additional ecological information:	
General notes:	Do not allow material to be released to the environment without proper governmental permits. Water hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Avoid transfer into the environment.
12.5 Results of PBT and vPvB assessment	
PBT:	Not applicable.
vPvB:	Not applicable.
12.6 Other adverse effects	No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Recommendation	Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal.
Uncleaned packagings:	
Recommendation:	Disposal must be made according to official regulations.

SECTION 14: Transport information

UN-Number	
ADR, IMDG, IATA	None
14.2 UN proper shipping name	
ADR, IMDG, IATA	None
14.3 Transport hazard class(es)	
ADR, IMDG, IATA	
Class	None
Packing group	
ADR, IMDG, IATA	None
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user	Not applicable.
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

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Transport/Additional information: Not dangerous according to the above specifications.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Australian Inventory of Chemical****Substances**

Substance is listed.

Standard for the Uniform Scheduling of**Drugs and Poisons**

Substance is not listed.

National regulations**Information about limitation of use:**Employment restrictions concerning young persons must be observed.
For use only by technically qualified individuals.**Water hazard class:**

Water hazard class 1 (Self-assessment): slightly hazardous for water.

Other regulations, limitations and prohibitive**regulations****ELINCS (European List of Notified Chemical****Substances)**

Substance is not listed.

Substances of very high concern (SVHC)**according to REACH, Article 57****REACH - Pre-registered substances**

Substance is not listed.

Substance is listed.

15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing data specification sheet: Health, Safety and Environmental Department.**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent

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