



# Co212-H (STROUMBOS)

## Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

### 1.1 Product Identifier:

Co212-H (STROUMBOS)

Contains the following substances with hazardous properties.

- Cobalt

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

Identified uses:

0

AC7

ERC2

ERC3

PROC14

PROC2

PROC22

PROC5

SU17

Other Process or activity:

Metal articles

Formulation of preparations (mixtures)

Formulation in materials

Production of preparations or articles by tableting, compression, extrusion, pelletisation

Use in closed, continuous process with occasional controlled exposure

Potentially closed processing operations with minerals/metals at elevated temperature; industrial setting

Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)

General manufacturing

### 1.3 Details of the supplier of the Safety Data Sheet

Stroumbos Kom. Ch. & Co OE  
Psaron 29  
Holargos  
Athens  
Attika  
15562  
Greece  
Tel: +302106561057  
Fax: +302106561058

Email: [stroumbos@stroumbos.com](mailto:stroumbos@stroumbos.com)

### 1.4 Emergency Telephone Number:

+3210 6561057 available 09:00 to 17:00 Athens Monday to Friday (English language only)

## Section 2: Hazards Identification

### 2.1 Classification of the substance or mixture:

#### 2.1.1 CLP

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# Co212-H (STROUMBOS)



Danger Warning



## CLP

### Hazard statements

Aquatic Chronic 4 H413

May cause long lasting harmful effects to aquatic life.

Resp. Sens. 1 H334

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Sens. 1 H317

May cause an allergic skin reaction.

### Precautionary statements

P202

Do not handle until all safety precautions have been read and understood.

P260

Do not breathe dust/fume/gas/mist/vapours/spray.

P270

Do not eat, drink or smoke when using this product.

P272

Contaminated work clothing should not be allowed out of the workplace.

P281

Use personal protective equipment as required.

P501

Dispose of contents/container in accordance with local and national regulations

## 2.1.2 CHIP



## CHIP

R42/43

May cause sensitisation by inhalation and skin contact.

R53

May cause long-term adverse effects in the aquatic environment.

S20/21

When using do not eat, drink or smoke.

S22

Do not breathe dust.

S24

Avoid contact with skin.

S37

Wear suitable gloves.

S60

This material and its container must be disposed of as hazardous waste.

S61

Avoid release to the environment. Refer to special instructions/safety data sheets.

## 2.2 Label Elements



Danger



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## Hazard statements:

Aquatic Chronic 4 H413

Resp. Sens. 1 H334

Skin Sens. 1 H317

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P260

P270

P272

P281

P501

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Do not eat, drink or smoke when using this product.

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Use personal protective equipment as required.

Dispose of contents/container in accordance with local and national regulations

## 2.3 Other Hazards

No Information

## Section 3: Composition/Information on Ingredients

### 3.2 Mixture

Conc. %	CAS No	EC No	REACH Registration No	Classification according to CHIP (Chemicals Hazard Information for Packaging and Supply) Regulations 2002	Classification according to 67/548/EEC
<b>Cobalt</b>					
60.00-70.00	7440-48-4	231-158-0	01-2116517392-44-0000	R42/43 R53 S20/21 S22 S24 S37 S60 S61	Aquatic Chronic 4 H413 Resp. Sens. 1 H334 Skin Sens. 1 H317 P202 P260 P270 P272 P281 P501
<b>Chromium</b>					
10.00-25.00	7440-47-3	231-157-5	01-2119485652-31-0000	S20/21 S22 S60	P202 P260 P270 P272 P281 P501
<b>Tungsten</b>					
1.00-10.00	7440-	231-		S20/21	P202

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	33-7	143-9		S22 S60	P260 P270 P272 P281 P501
<b>Molybdenum</b>					
1.00-10.00	7439-98-7	231-107-2		S20/21 S22 S60	P202 P260 P270 P272 P281 P501
<b>Niobium</b>					
0.10- 1.00	7440-03-1	231-113-5		S20/21 S22 S60	P202 P260 P270 P272 P281 P501
<b>Silicon</b>					
0.10- 1.00	7440-21-3	231-130-8	05-2115702009-58-0000	S20/21 S22 S60	P202 P260 P270 P272 P281 P501

### Section 4: First-Aid Measures

#### 4.1 Description of first aid measures

- Skin Contact:** Wash off thoroughly with soap and water. If rash develops seek medical attention.
- Eye Contact:** Irrigate thoroughly with water for at least 10 minutes – obtain medical attention if irritation persists
- Inhalation:** Remove from exposure, rest and keep warm. In severe cases or if exposure has been great, obtain medical attention.
- Ingestion:** Wash out mouth thoroughly with water. Obtain medical attention if further symptoms develop.

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

- Skin Contact:** Rash may develop.
- Eye Contact:** Mechanical irritation.



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Inhalation: Possible asthma like symptoms.

Ingestion: No information

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

Skin Contact: Treat symptomatically

Eye Contact: Treat symptomatically

Inhalation: Treat symptomatically

## Section 5: Fire Fighting Measures

### 5.1 Extinguishing Media

Use water mist, extinguishing type D powder or sand.

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

Avoid formation of dust cloud as this may lead to an increased risk of a dust explosion.

### 5.3 Advice for fire fighters

No information

## Section 6: Accident Release Measures

### 6.1 Personal precautions

6.1.1 For non-emergency personnel: Wear suitable protective clothing and equipment.

6.1.2 For emergency responders: Wear suitable protective clothing and equipment.

**6.2 Environmental precautions:** Take precautions to ensure product does not contaminate ground or enter the drainage system.

### 6.3 Methods and material for containment and clear up

6.3.1 For containment: Not applicable

6.3.2 For cleaning up:

Small spillage: Vacuum with equipment fitted with HEPA filtration.

Large spillage: Solids should be carefully transferred to salvage containers. Any residues should be treated as small spillages.

6.3.3 Other information: No Information.



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## 6.4 Reference to other sections

No Information

## Section 7: Handling and Storage

### 7.1 Precautions for safe handling

Protective measures:	Avoid contact with skin and eyes. Do not breathe dust. Wash hand and face thoroughly after working with material.
Measures to prevent fire:	Not applicable.
Measures to protect the environment:	Use appropriate containment to avoid environmental hazard.
Advice on general occupational hygiene:	Work using a suitable extraction/ventilation system. Contaminated clothing should be removed and washed before re-use.

### 7.2 Conditions for safe storage

Technical measures and storage conditions:	Store in sealed container in dry conditions and keep the container closed when not in use
Packaging materials:	Keep in the container supplied, or suitable metal, plastic or polythene container.
Requirements for storage rooms and vessels:	Containers should be stored under cover in a clean and dry environment.
Storage class:	Not applicable.
Further information on storage conditions:	Local regulations should be followed regarding the storage of this material.

### 7.3 Specific end uses

Identified uses:

0	Other Process or activity:
AC7	Metal articles
ERC2	Formulation of preparations (mixtures)
ERC3	Formulation in materials
PROC14	Production of preparations or articles by tableting, compression, extrusion, pelletisation
PROC2	Use in closed, continuous process with occasional controlled exposure
PROC22	Potentially closed processing operations with minerals/metals at elevated temperature; industrial setting
PROC5	Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
SU17	General manufacturing

## Section 8: Exposure Controls and Personal Protection

### 8.1 Control Parameters

CAS No.	Name	Legal Basis	WEL 8hr limit		WEL 15min limit	
			ppm TWA (8)	mg/m3 TWA (8)	ppm TWA	mg/m3 TWA

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			hour)	hour)	(short term)	(short term)
7440-48-4	C o b a l t	HSE EH40/2005 Workplace exposure limits	-	0.1	-	-
7440-47-3	C h r o m i u m	HSE EH40/2005 Workplace exposure limits	-	0.5	-	-
7440-33-7	T u n g s t e n	HSE EH40/2005 Workplace exposure limits	-	5	-	1 0
7439-98-7	M o l y b d e n u m	HSE EH40/2005 Workplace exposure limits	-	10	-	2 0
7440-03-1	N i o b i u m	HSE EH40/2005 Workplace exposure limits	-	Inhalable 10, respirable 4.	-	-
7440-21-3	S i l i c o n	HSE EH40/2005 Workplace exposure limits	-	inhalable 10, respirable 4.	-	-

### 8.2 Exposure Controls



#### 8.2.1 Appropriate engineering controls:

Substance/mixture related measures to prevent exposure during identified uses: Not applicable

Structural measures to prevent exposure: Enclosed processes

Organisational measures to prevent exposure: Substance/Mixture only to be used by those trained in its safe use.

Technical measures to prevent exposure: Enclosed processes or local exhaust ventilation



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### 8.2.2 Personal protection equipment:

8.2.2.1 Eye and face protection: Safety glasses

8.2.2.2 Skin protection:

Hand protection: Impervious gloves

Other skin protection: Barrier cream

8.2.2.3 Respiratory protection: FFP3 dust mask to EN149:2001

8.2.2.4 Thermal hazards: Not applicable

8.2.3 Environmental exposure controls:

Substance/mixture related measures to prevent exposure: Not applicable

Instruction measures to prevent exposure: Not applicable

Organisational measures to prevent exposure: Substance/Mixture only to be used by those trained in its safe use.

Technical measures to prevent exposure: Not applicable

## Section 9: Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	Grey powder
<b>Odour</b>	Odourless
<b>Odour Threshold</b>	No data
<b>pH</b>	No data
<b>Melting point/freezing point</b>	0
<b>Initial boiling point and boiling range</b>	No data
<b>Flash point</b>	No data
<b>Evaporation rate</b>	No data
<b>Flammability (solid,gas)</b>	No data
<b>Upper/lower flammability or explosive limits</b>	No data
<b>Vapour pressure</b>	No data
<b>Vapour density</b>	No data
<b>Relative density</b>	9.27
<b>Solubility(ies)</b>	No data
<b>Partition coefficient; n-octanol/water</b>	No data
<b>Auto-ignition temperature</b>	No data
<b>Decomposition temperature</b>	No data
<b>Viscosity</b>	No data
<b>Explosive properties</b>	No data
<b>Oxidising properties</b>	No data





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**Particle size** 100%<1mm

## 9.2 Other Information

No data.

## Section 10: Stability and Reactivity

<b>10.1 Reactivity:</b>	No data
<b>10.2 Chemical stability:</b>	Stable under normal conditions.
<b>10.3 Possibility of hazardous reactions:</b>	No Data
<b>10.4 Conditions to avoid:</b>	Oxidising agents.
<b>10.5 Incompatible materials:</b>	No data
<b>10.6 Hazardous decomposition products:</b>	No data

## Section 11: Toxicological Information

### 11.1 Information on toxicological effects

Acute toxicity	No data
Skin corrosion/irritation	No data
Serious eye damage/irritation	No data
Respiratory or skin sensitisation	No data
Germ cell mutagenicity	No data
Carcinogenicity	No data
Reproductive toxicity	No data
Summary of evaluation of the CMR properties	No data
STOT-single exposure	No data
STOT-repeated exposure	No data
Aspiration hazard	No data



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## Section 12: Ecological Information

### 12.1 Toxicity

Long-term Ecotoxicity No data

### 12.2 Persistence and degradability

Abiotic Degradation No data

Physical- and photo-chemical elimination No data

Biodegradation No data

### 12.3 Biocummulative potential

Partition coefficient n-octanol/water (log Kow) No data

Bioconcentration factor (BCF) No data

### 12.4 Mobility in soil

Known or predicted distribution to environmental compartments No data

Surface tension No data

Adsorption/Desorption No data

**12.5 Results of PBT & vPvB assessment** No data

**12.6 Other adverse effects** No data

**12.7 Additional information** No data

## Section 13: Disposal Considerations

### 13.1 Waste treatment methods

#### 13.1.1 Product/Packaging disposal:

EWC for waste product, ferrous alloys 12-01-02, non-ferrous alloys 12-01-04

EWC for non product contaminated packaging, steel drums 15-01-04, card 15-01-01, plastic 15-01-02, wood 15-01-03

EWC for product contaminated packaging, all types 15-01-10

#### 13.1.2 Waste treatment – relevant information:

Chemical residues are generally classified as special waste and as such, are covered by Directive 2008/98/EC of the European Parliament. Contact your local waste disposal authority for advice or pass to a chemical recovery company.

#### 13.1.3 Sewage disposal - relevant information:

#### 13.1.4 Other disposal recommendations:

## Section 14: Transport Information

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Holargos  
Sheet  
Athens  
warranty  
Attika  
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14.1 UN Number	None
14.2 UN proper shipping name	Not classified hazardous for transport
14.3 Transport hazard class(es)	Not applicable
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	None
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IPBC code	Not Applicable

### Section 15: Regulatory Information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

UK	The use of this product must be assessed in accordance with the requirements of the COSHH Regulations 2002 as amended.
EU	EC directive 98/24/EC on the Protection of the health and safety of workers from the risks related to chemical agents at work

#### Authorisation and/or restrictions on use

**Authorisations:** Not applicable

**Restrictions:** see section 1.2 on uses advised against.

**Chemical safety assessment:** No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

### Section 16: Other Information

#### 16.1 Revision Information

Revision:	Reason for revision:
1	04/03/2013 Initial setup
2	10/04/2013 SDS updated to reflect current legislation and clarification
3	27/06/2013 After review WGK changed to 1
4	05/08/2013 Section 14.8. Reference to UN3077 removed
5	02/10/2014 None



## Co212-H (STROUMBOS)

### 16.2 List of abbreviations.

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CEN	European Committee for Standardisation
CLP	Classification Labelling Packaging Regulation ; Regulation (EC) No 1272/2008
CAS#	Chemical Abstracts Service number
COSHH	Control of Substances Hazardous to Health
CSA	Chemical Safety Assessment
CSR	Chemical Safety Report
DNEL	Derived No Effect Level
DPD	Dangerous Preparations Directive 1999/45/EC
DSD	Dangerous Substances Directive 67/548/EEC
DU	Downstream User
ECHA	European Chemicals Agency
ES	Exposure Scenario
ext-SDS	Extended Safety Data Sheet (SDS with ES attached)
EWC	European Waste Catalogue (replaced by LoW – see below)
GES	Generic Exposure Scenario
GHS	Globally Harmonized System
LC50	Lethal Concentration to 50 % of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
MSDS	Material Safety Data Sheet
OEL	Occupational Exposure Limit
PBT	Persistent, Bioaccumulative and Toxic substance
PEC	Predicted Effect Concentration
PNEC(s)	Predicted No Effect Concentration(s)
PPE	Personal Protection Equipment
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
STOT	Specific Target Organ Toxicity
RE	Repeated Exposure
(STOT) SE	Single Exposure
SVHC	Substances of Very High Concern
TWA	Time Weighted Average (long term 8 hours) (short term 15 minutes unless specified otherwise)
UN	United Nations
vPvB	Very Persistent and Very Bioaccumulative

### 16.3 Key literature references and sources for data

Testing in accordance with the method described in 49 CFR 173 Appendix E and UN Recommendations on the Transport of Dangerous Goods for flammability was used to establish the non-flammability of this product.

### 16.4 Classification and procedure used to derive the classification for mixtures according to Regulation 1272/2008/EC & 1907/2006/EC.

**Classification in accordance with 67/458/EEC & 1999/45/EC until 1<sup>st</sup> June 2015.**

### 16.6 Training advice:

### 16.7 Further information:



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Testing in accordance with the method described in 49 CFR 173 Appendix E and UN Recommendations on the Transport of Dangerous Goods for flammability was used to establish the non-flammability of this product.