

# CLASSIFICATION AND LABELLING

## 1. Classification and labelling according to CLP / GHS

**Name:** Leach residues, cadmium cake

Implementation: EU

State/form of the substance: moist residue

Related composition: Leach residues, cadmium cake

Remarks: The classification mentioned here is based on the composition of a worst case sample. However, the concentration of several composing elements/substances of this intermediate can vary. As a result of this variation, the classification of the intermediate should also be modified accordingly.

### Classification and labelling according to CLP / GHS for physicochemical properties

Not classified for physico-chemical properties

### Classification and labelling according to CLP / GHS for health hazards

Endpoint	Hazard category	Hazard statement	Driver for classification
Acute toxicity - oral:	Acute Tox. 3	H301: Toxic if swallowed.	CoSO <sub>4</sub> , Cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), mixture of cadmium sulphide with zinc sulphide (xCdS.yZnS), mixture of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in Annex VI, thallium compounds, with the exception of those specified elsewhere in Annex VI, ZnSO <sub>4</sub> , NiSO <sub>4</sub> , lead compounds with the exception of those specified elsewhere in Annex VI, MnO <sub>2</sub> , CuSO <sub>4</sub> , CdSO <sub>4</sub> , As <sub>2</sub> O <sub>3</sub> / AsO <sub>3</sub>
Acute toxicity - inhalation:	Acute Tox. 1	H330: Fatal if inhaled.	CoSO <sub>4</sub> , Cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), mixture of cadmium sulphide with zinc sulphide (xCdS.yZnS), mixture of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in Annex VI, thallium compounds, with the exception of those specified elsewhere in Annex VI, ZnSO <sub>4</sub> , NiSO <sub>4</sub> , lead compounds with the exception of those specified elsewhere in Annex VI, MnO <sub>2</sub> , CuSO <sub>4</sub> , CdSO <sub>4</sub> , As <sub>2</sub> O <sub>3</sub> / AsO <sub>3</sub>
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	As <sub>2</sub> O <sub>3</sub> / AsO <sub>3</sub>
Serious damage / eye irritation:	Eye Damage 1	H318: Causes serious eye damage.	ZnSO <sub>4</sub> , As <sub>2</sub> O <sub>3</sub> / AsO <sub>3</sub>
Respiration sensitization:	Resp. Sens. 1	H334: May cause allergy or asthma symptoms or breathing difficulties if	NiSO <sub>4</sub>

Endpoint	Hazard category	Hazard statement	Driver for classification
		inhaled.	
Skin sensitisation:	Skin Sens. 1	H317: May cause an allergic skin reaction.	NiSO4
Reproductive Toxicity:	Repr. 1A	H360: May damage fertility or the unborn child <state specific effect if known > <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.	lead compounds with the exception of those specified elsewhere in Annex VI
Germ cell mutagenicity:	Muta. 1B	H340: May cause genetic defects <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.	CdSO4
Carcinogenicity:	Carc. 1A	H350: May cause cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.	NiSO4
Specific target organ toxicity - repeated:	STOT Rep. Exp. 1  Affected organs: kidneys - lungs - bones  Route of exposure: Inhalation	H372: Causes damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.	lead compounds with the exception of those specified elsewhere in Annex VI

#### Classification and labelling according to CLP / GHS for environmental hazards

Endpoint	Hazard category	Hazard statement	Driver for classification
Hazards to the aquatic environment (acute/short-term):	Aquatic Acute 1	H400: Very toxic to aquatic life.	Cd (non pyrophoric), CoSO4, Cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), mixture of cadmium sulphide with zinc sulphide (xCdS.yZnS), mixture of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in Annex VI, ZnSO4, NiSO4, lead compounds with the exception of those specified elsewhere in Annex VI, CuSO4, CdSO4
Hazards to the aquatic environment (long-term):	Aquatic Chronic 1	H410: Very toxic to aquatic life with long lasting effects.	Cd (non pyrophoric), CoSO4, Cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), mixture of cadmium sulphide with zinc sulphide (xCdS.yZnS), mixture of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in Annex VI, ZnSO4, NiSO4, lead compounds with the exception of those specified elsewhere in Annex VI, CuSO4, CdSO4

#### Labelling

Signal word: Danger

Hazard pictogram:

GHS09: environment



GHS07: exclamation mark



GHS08: health hazard



GHS05: corrosion



GHS06: skull and crossbones



Hazard statements:

H301: Toxic if swallowed.

H330: Fatal if inhaled.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H317: May cause an allergic skin reaction.

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H340: May cause genetic defects.

H350: May cause cancer.

H360: May damage fertility or the unborn child.

H372: Causes damage to organs (CNS ó kidneys ó blood) through prolonged or repeated exposure via oral route.

H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P202: Do not handle until all safety precautions have been read and understood.

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

P273: Avoid release to the environment.

P391: Collect spillage.

P308+P313: IF exposed or concerned: Get medical advice/attention.

P405: Store locked up.

P501: Dispose of contents/container to... (in accordance with local, regional, or national legislation)

## 2. Classification and labelling according to DSD / DPD

### Self classification(s)

#### Self classification according to Directive 67/548/EEC criteria

Endpoints	Classification	Driver for classification
Acute toxicity	T+; R26/28 Very toxic by inhalation and if swallowed.	One or more
Repeated dose toxicity	T; R48/23/25 Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.	CdSO <sub>4</sub>
Irritation / Corrosion	Xi; R41 Risk of serious damage to eyes.	One or more
Sensitisation	R42/43 May cause sensitisation by inhalation and skin contact.	NiSO <sub>4</sub>
Carcinogenicity	Carc. Cat. 1; R49 May cause cancer by inhalation.	NiSO <sub>4</sub>
Mutagenicity - Genetic Toxicity	Muta. Cat. 1; R46 May cause heritable genetic damage.	CdSO <sub>4</sub>
Toxicity to reproduction-fertility	Repr. Cat. 2; R60 May impair fertility.	lead compounds with the exception of those specified elsewhere in Annex VI
Toxicity to reproduction-development	Repr. Cat. 1; R61 May cause harm to the unborn child.	lead compounds with the exception of those specified elsewhere in Annex VI
Environment	N; R50/53 Dangerous for the environment; Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.	Cd (non pyrophoric), CoSO <sub>4</sub> , Cadmium compounds, with the exception of cadmium sulphoselenide (xCdS.yCdSe), mixture of cadmium sulphide with zinc sulphide (xCdS.yZnS), mixture of cadmium sulphide with mercury sulphide (xCdS.yHgS), and those specified elsewhere in Annex VI, ZnSO <sub>4</sub> , NiSO <sub>4</sub> , lead compounds with the exception of those specified elsewhere in Annex VI, CuSO <sub>4</sub> , CdSO <sub>4</sub>

### Labelling

#### Indication of danger:

T+ - very toxic  
 T - toxic  
 Xi - irritant  
 Xn - harmful  
 N - dangerous for the environment

#### R-phrases:

R26/28 - Very toxic by inhalation and if swallowed  
 R41 - Risk of serious damage to eyes  
 R42/43 - May cause sensitisation by inhalation and skin contact  
 R46 - May cause heritable genetic damage  
 R49 - May cause cancer by inhalation  
 R60 - May impair fertility  
 R61 - May cause harm to the unborn child  
 R48/23/25 - Toxic: danger of serious damage to health by prolonged exposure through inhalation and if

swallowed

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S-phrases:

S1 - keep locked up

S20/21 - when using do not eat, drink or smoke

S26 - in case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S36/37/39 - wear suitable protective clothing, gloves and eye/face protection

S53 - avoid exposure - obtain special instructions before use

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