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SAFETY DATA SHEET

Issued on: 16.11.2006

Trade name: **CEGIPS**

Revised on: 09.04.2019

Revised version No.: 5

1. Identification of the substance/mixture and of the company/undertaking

1.1. 10	**Product identifier (Product registration number):**	**CEGIPS**	**Identification no.:** P077941, P077941
1.2.	**Relevant identified uses of the substance/ mixture and uses advised against:**	Binding agents, fertilisers, fillers, soil conditioner.	
1.3.	**Details of the supplier of the safety data sheet (manufacturer, importer, only representative, downstream user, distributor):**		
1.3.1.	Supplier name:	CINKARNA CELJE, d.d.	PE TITANOV DIOKSID
1.3.2.	Supplier address and telephone:	Kidričeva 26, 3001 Celje - Slovenija, +386 3 427 60 00	
1.3.3.	E-mail (competent person) :	anja.pfeifer@cinkarna.si	
1.4.	Emergency phone number :	In case of medical emmergency please contact the doctor. Additional informations are available during week from 7 AM to 3 PM on the telephone number +386 (0)3 427 6000.	

2. Hazards identification

2.1.	**Classification of substance or mixture:**	Classification in accordance with Regulation (EC) št.1272 / 2008 (CLP) and its amendments and changes, not due as dangerous.
Reference to Chapter 16		
2.2.	**Label elements:**	**According to regulation (EC) no.1272/2008 (CLP) and its amendments, the substance is not dangerous.**
2.3.	**Other hazards:**	No special hazards. Large quantities of dust may be produced during dry-state pulverization.

3. Composition / information on ingredients

3.1. **Substances**

Chemical name	CAS n. EC n. Index	Registration n. REACH	Conc. (wt/vol/ max. conc. %)	(Regulation (EC) No 1272/2008 (CLP)	
				Hazard statements (H)	Hazard class and hazard category
Calcium sulfate dehydrate	7778-18-9 231-900-3	01-2119444918-26-0164	> 95 %		
Calcium sulfate dihidrate	7778-18-9 231-900-3	01-2119444918-26-0164	>95 %		

Reference to Chapter 16

4. First aid measures

4.1.	**Description of first aid measures**	
	After inhalation:	Following inhalation of large quantities of dust remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
	After skin contact:	If some discomfort appears immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse. It is natural salt and there are no known allergic reactions.
	After eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.
	After Ingestion:	Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
4.2.	Most important symptoms and effects, acute and delayed:	No specific symptoms or effects have been reported.
4.3	Indication of any immediate medical attention and special treatment needed:	Not applicable.

5. Fire-fighting measures

5.1.	**Extinguishing media**	
	Appropriate extinguishing media:	Use any means suitable for extinguishing surrounding fire.
	Inappropriate extinguishing media:	Not applicable.
5.2.	**Specific hazards arising from the substance or mixture:**	
	Hazardous combustion products:	Not applicable.
5.3.	**Advice for firefighters:**	Product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings. No special protective equipment needed for fire – fighters.

6. Accidental release measures

6.1.	**Personal precautions protective equipment and emergency procedures**	
6.1.1.	For non-emergency persons:	Ventilate area of leak or spill. Wear appropriate personal protective equipment. Avoid generation of dust. Special danger of slipping by leaking/spilling product.
6.1.2.	For emergency persons:	Ventilate area of leak or spill. Wear appropriate personal protective equipment. Avoid generation of dust. Special danger of slipping by leaking/spilling product.
6.2.	**Environmental precautions**	No special environmental measures are necessary.
6.3.	**Methods and material for containment and cleaning**	
6.3.1	Appropriate spillage retaining techniques (fencing, covering drains, retaining procedures):	All containment for dry substances suitable.
6.3.2.	Appropriate cleaning procedures	

	Neutralization techniques:	Not applicable.
	Decontamination techniques:	Not applicable.
	Absorbent materials:	Not applicable.
	Cleaning techniques:	Wet sweeping may be used to avoid dust dispersal.
	Sucking techniques:	Vacuuming may be used to avoid dust dispersal.
	Required equipment for retaining / cleaning:	Spade, broom or vacuume cleaner and appropriate container.
6.3.3.	Inappropriate retaining or cleaning techniques:	Not applicable.
6.4.	**Reference to other sections:**	None.

7. Handling and storage

7.1.	**Precautions for safe handling**	
7.1.1.	Recommendations shall be specified to:	
	Safe handling of substance or mixture:	Avoid inhalation of dust. Wear appropriate personal protective equipment. There are no special provisions if the product is used appropriately.
	Prevent handling of incompatible substances or mixtures:	Not applicable.
	Reduce the release of the substance or mixture to the environment:	Not applicable.
7.1.2.	General working hygiene (prohibited eating, drinking and smoking within working area; washing hands, etc.):	Do not to eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.
7.2.	**Conditions for safe storage, including any incompatibilities**	
	Management of risks associated with:	
	- explosive atmospheres	Not applicable.
	- corrosive substances:	Not applicable.
	- incompatible substances or mixtures:	Not applicable.
	- evaporation substances:	Not applicable.
	- potential ignition sources:	Not applicable.
	How to control the effects of:	
	- weather conditions:	Not applicable.
	- ambient pressure:	Not applicable.
	- temperature:	Not applicable.
	- sunlight:	Not applicable.
	- humidity:	Not applicable.
	- vibrations:	Not applicable.

	Securing integrity of substance or mixture by use of:	
	- stabilisers:	Not applicable.
	- antioxidants:	Not applicable.
	Other advice including:	
	- prevention specifications:	There are no special requirements. If possible use local exhaust ventilation.
	- specific designs for storage rooms or vessels (including retention walls and ventilation):	There are no special requirements.
	- quantity limitations regarding storage conditions:	Not applicable.
	- packaging compatibility:	Not applicable.
7.3.	**Specific end use(s):**	Refer exposure scenarios for humans and environment in Annex I.

8. Exposure control / personal protection

8.1.	**Control parameters**	
8.1.1.	Limit values (LV):	6 (A) mg/m3
Reference to Chapter 16		
	DNEL	Short peak concentrations of calcium sulfate can occur in situations where clouds of dusts are formed, e.g. in the moment when a transport container is emptied and the dusty product is rushing into the mixing vessel or in processes where mixing with high-energy agitation occurs in open vessels. The long-term occupational exposure concentrations resulting from the processes and activities described in this exposure scenario are modelled for situations with and without local exhaust ventilation (LEV) and for workers not wearing respiratory protection and workers using respiratory protection with an efficacy of 90%. The inhalable calcium sulfate concentration in the air that may arise from closed processes (PROC 1, 2, 3) is lower than or equal to 1 mg/m3 and during calcining (PROC 23) and in the laboratory (PROC 15) lower than or equal to 5 mg/m3.
	PNEC	In the environment, calcium sulfate will dissociate into calcium and sulfate ions. These ions are naturally ubiquitous in the environment; calcium will be assimilated by species present in the water and is necessary to maintain a good chemical balance in soils, water and plants and sulfate will either become part of the sulfur cycle or be assimilated by microorganisms and plants. However, if there are high anthropogenic sulfate concentrations in water, eutrophication may take place, i.e. there might be an accumulation of plant nutrients in waters. This may lead to a significant reduction of the oxygen content. Investigations show that high sulfate concentrations can influence the low live, which may change the biocoenosis of the waters and thus have an effect on the higher life as well. To current knowledge, no attempts have been made so far to quantify these indirect effects, but they are expected to be small (Völker, 2006).
8.2.	**Exposure control**	
8.2.1.	Appropriate technical and engineering controls:	Local exhaust ventilation for indoor use. Chimney filters for industrial use.
8.2.2.	Personal protective equipment:	
	- respiratory protection:	Wear protective mask (EN 149:2001+A1:2009:FFP3) in case of high dust generation.
	- skin protection:	Protective clothing-general specification (SIST EN ISO 13688; 2013).

	- hand protection:	Protective gloves SIST EN ISO 374-1:2017 Material: nitrile rubber or PVC or neopren or latex Penetration time: not relevant (dust) Gloves thickness: min 0,1 mm
	- eye/ face protection:	Protective glasses with side protectors (SIST EN 166:2002).
	- heat radiation protection:	There are no special requirements.
	Other:	Washing your hands before breaks and at the end of work.
8.2.3.	Environment exposure control	Refer to exposure scenarios.

9. Physical and chemical properties

9.1.	**Information on basic physical and chemical properties**	
	- appearance:	Solid. Crystalline powder granulate.
	- colour:	Color varies white. Beige. Light yellow.
	- odour:	Neutral.
	- pH:	In aqueous solution about 7.
	- melting/ freezing point:	1450 °C.
	- boiling point and boiling range:	Not applicable.
	- flash point:	Not applicable.
	- vaporization rate:	Not applicable.
	- flammability (solid, gas):	Not applicable.
	- upper /lower flammability or explosive limit:	Not applicable.
	- vapour pressure:	Not applicable.
	- vapour density:	Not applicable.
	- relative density:	2,96 g/cm3
	- solubility:	Water solubility about 2 g/l
	- partition coefficient: n-octanol/water	Product is inorganic.
	- spontaneous combustion temperature:	Not applicable.
	- decomposition temperature:	Into $CaSO_4 \times ½ H_2O$ and H_2O about 140 °C (about 413 K) Into $CaSO_4$ and H_2O about 700 °C (about 973 K) Into CaO and SO_3 about 1450 °C (about 1723 K)
	- viscosity:	Not applicable.
	- explosion properties:	Not explosive.
	- oxidation properties:	Not oxidizing.
9.2.	**Other information**	None.

10. Stability and reactivity

10.1.	**Reactivity:**	Materials to avoid: no materials known.
10.2.	**Chemical stability:**	The substance is stable under normal ambient and anticipated storage handling conditions of temperature and pressure.
10.3.	**Possible hazardous reactions:**	Mixing with an aqueous solution of sodium carbonate will result in formation of carbon dioxide.
10.4.	**Conditions to avoid:**	Avoid contamination by sulfur-reducing bacteria and water under anaerobic conditions.
10.5.	**Incompatible materials:**	No incompatible materials known.
10.6.	**Hazardous decomposition products:**	Decomposition takes place from temperatures above 1450 °C. Decomposition under formation of sulfur trioxide and calcium oxide.

11. Toxicological data

11.1	**Information on toxicological effects**	With right handling, there is no known dangerous or hazardous effects.
Reference to Chapter 16		
	- acute toxicity:	According to known date, the substance is not acute toxic.
	- skin corrosion /irritation:	Not applicable.
	- serious eye damage/ irritation:	Not applicable.
	- respiratory or skin sensitisation:	Not applicable.
	- germ cell mutagenicity:	Not applicable.
	- Carcinogenicity:	Not applicable.
	- toxicity for reproduction:	Not applicable.
	- STOT ? single exposure:	Not applicable.
	- STOT ? repeated exposure:	Not applicable.
	- Inhalation hazards:	Not applicable.

12. Ecological information

12.1.	**Toxicity:**	In the environment, calcium sulfate will dissociate into calcium and sulfate ions. These ions are naturally ubiquitous in the environment; calcium will be assimilated by species present in the water and is necessary to maintain a good chemical balance in soils, water and plants and sulfate will either become part of the sulfur cycle or be assimilated by microorganisms and plants. However, if there are high anthropogenic sulfate concentrations in water, eutrophication may take place, i.e. there might be an accumulation of plant nutrients in waters. This may lead to a significant reduction of the oxygen content. Investigations show that high sulfate concentrations can influence the low live, which may change the biocoenosis of the waters and thus have an effect on the higher life as well. To current knowledge, no attempts have been made so far to quantify these indirect effects, but they are expected to be small (Völker, 2006). Some ecosystems with very high geogenic calcium sulfate concentrations are naturally occurring in carstic regions, showing that organisms are able to adapt to such conditions.
12.2.	**Persistence and degradability:**	In the environment, calcium sulfate will dissociate into calcium and sulfate ions. These ions are naturally ubiquitous in the environment; calcium will be assimilated by species present in the water and is necessary to maintain a good chemical balance in soils, water and plants and sulfate will either become part of the sulfur cycle or be assimilated by microorganisms and plants.

12.3.	**Accumulation in organisms:**	Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected. No indication to bioaccumulation potential. The ecological data were measured on the hydrolysed product. According to experiences this product is inert and not degradable biologically.
12.4.	**Mobility in soil:**	Water-soluble solids. Natural constituent in soils. If product enters soil, it will be mobile and may contaminate groundwater.
12.5.	**PBT and vPvB assessment results:**	This substance does not meet the criteria for classification as PBT pr vPvB.
12.6.	**Other adversative effects:**	None.
Reference to Chapter 16		

13. Disposal considerations

13.1.	**Waste treatment methods:**	Waste codes / waste designations according to EWC: 06 11 01

14. Transport information

	ADR, RID, ADN, IMDG, ICAO-TI/IATA-DGR	This substance is not classified as hazardous according to regulation (EC) no.1272/2008 and 286/2011.
14.1.	**UN number:**	Je ni
14.2.	**UN proper shipping name (technical name if required):**	Product is not under ADR regulations.
14.3.	**Transport hazard class:**	Ni predpisan.
14.4.	**Packaging group:**	Ni predpisana.
14.5.	**Hazard to environment:**	None.
14.6.	**Special precautions for user:**	None.
14.7.	**Bulk transport by MARPOL 73/78 Annex II and IBC Code:**	Not applicable.
14.8.	**Tunnel code:**	Ni predpisana.
14.9.	**Classification code:**	Not applicable.
14.10.	**Hazard label:**	Not applicable (the substance is not hazardous or dangerous).

15. Regulatory information

15.1.	**Rules and regulations regarding health, safety and environmental hazard specific to the substance or mixture:**	This substance is not classified as hazardous according to regulation (EC) no.1272/2008 and 286/2011.
15.2.	**Chemical safety assessment:**	For this substance a chemical safety assessment is provided in Annex I.

16. Other information

	Amendments made in the revised edition:	Safety data sheet amendment in all sections due to change of legislation.
	List of relevant R phrases, hazard statements (H) and precautionary statements (P) which have not been written out in full in sections 2 to 15:	Not required.
	Training of personnel:	Training instructions on health and safety issues are available on www.eurogypsum.org

	Sources:	MSDS, REACH regulation, CLP regulation.	
	A key or legend to abbreviation and acronyms used in the safety data sheet:	ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
		ADR	European Agreement concerning the International
		CAS	Chemical Abstract Services
		CLP	Regulation (EC) No 1272/2008 on classification, packaging and labelling of substances and mixtures
		DNEL	Derived No Effect Level
		EC50	Concentration at which it dies / die 50% of test organisms
		EWC	European waste code
		IATA	International Air Transport Association
		ICAO-TI	International Civil Aviation Organisation - Technical Instructions
		IMDG	Code International Maritime Dangerous Goods Code
		LC50	Lethal Concentration in the air, killing 50% of the test organisms (Lethal Concentration)
		LD50	Lethal dose at which 50% die of test organisms
		LV	Limit
		PBT	Persistent, Bioaccumulative, Toxic
		PNEC	Predicted No Effect Concentration
		REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
		RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
		STOT	Specific target organ toxicity
		STP	sewage treatment plant
		VPvB	Very Persistent, Very Bioaccumulative

Data specified above are based on research and experience of the supplier at the time of compiling the present MSDS. The supplier may not assume responsibility in case the buyer/user should fail to use the product in accordance with the relevant suggestions and recommendations. No information contained in the present MSDS may release the buyer/user from liability to strictly follow any legal requirements regarding his business activities.