

**SAFETY DATA SHEET**

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Date issued: November the 7th, 2008

Product name: Sodium Titanate

Date revised: November the 7th, 2008

Revised version No.: 0

1. Chemical product and supplier identification:

1.1.	Product identification:	Sodium Titanate	Identification No.: P932999
1.2.	Product use:	Synthesis of pigment TiO ₂	
1.3.	Supplier identification (manufacturer, importer, distributor):		
1.3.1.	Supplier name:	CINKARNA CELJE, Inc.	
1.3.2.	Supplier address:	Kidričeva 26, 3001 CELJE – SLOVENIJA, +386 3 427 60 00	
1.3.3.	Contact person:	Tatjana.Rozman@cinkarna.si	
1.3.4.	Emergency number:	+386 3 427 61 12	

2. Hazard identification:

2.1.	Hazards:	/
2.2.	Specific hazards:	Non-volatile white suspension, odourless.
2.3.	Symptoms after exposure:	<ul style="list-style-type: none"> - Inhalation: May cause irritation of mouth cavity and respiratory organs - Skin contact: May cause abrasive irritation - Contact with eyes: Prolonged or repeated contact may cause abrasive irritation - Ingestion: Prolonged or repeated contact may cause abrasive irritation
2.4.	Danger to environment:	N.a.

3. Composition with information on hazardous ingredients:

3.1.	Common name:	Sodium Titanate						
3.2.	Hazardous ingredients:							
Chemical name	Registration number	Index No.	CAS No.	EC No.	wt./vol/ %/ max concentration	Hazard symbol	Risk R	
Disodium titanate, Na ₂ TiO ₃			12034-34-3	234-802-9	9 wt%TiO ₂ – 17wt%TiO ₂			

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4. First aid measures:		
4.1.	General instructions:	Remove contaminated clothing and footwear.
4.2.	Inhalation:	Remove victim to fresh air, give oxygen if breathing is difficult and seek medical attention if symptom persist
4.3.	Contact with skin:	Remove contaminated clothing, brush material off skin, wash affected area with water. Seek medical attention if symptoms persist.
4.4.	Contact with eyes:	Flush eyes with lukewarm water, lifting upper and lower eyelids, for at least 15 minutes. Seek medical attention if symptoms persist.
4.5.	Ingestion:	Give 1-2 glasses of milk or water and induce vomiting. Seek medical attention if symptoms persist. Never induce vomiting or give anything by mouth to an unconscious person.
4.6.	First aid at work:	/
5. Fire – fighting measures:		
5.1.	Suitable extinguishing medium:	Sodium Titanate is not flammable and non explosive. Use suitable extinguishing agents for surrounding materials and type of fire.
5.2.	Special exposure hazards:	Fumes from fire are hazardous.
5.3.	Special protective fire fighting equipment, indicated by standard if any:	Protective gloves, protective clothes or apron, watertight shoes or boots. Protective goggles or face shield. Use self – contained breathing apparatuses .
6. Accidental release measures:		
6.1.	Personal safety measures:	Evacuate area. Wear protective clothing, footwear and face shield or goggles within the hazardous area.
6.2.	Environment protection:	Prevent drainage into water beds and sewer ducts.
6.3.	Cleaning after accidental discharge:	Vacuum up spill Sodium Titanate or neutralise with lime and then mechanically collect into designated and appropriately marked vessels /containers.
7. Handling and storage:		
7.1.	Handling:	No specific requirements. Use personal protective equipment.
7.1.1.	Safety measures:	Familiarize operators handling the Sodium Titanate with hazards, appropriate handling, personal protective equipment, and first aid measures in case of accidents, assistance and environment protection. Shower must be available in the vicinity of storage area.
7.1.2.	Technical measures:	/
7.1.3.	Recommended and forbidden measures:	/
7.2.	Storage:	/

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7.2.1.	Conditions for safe storage:	Store in a tightly sealed container in cool, dry area.
7.2.2.	Separating incompatible products:	Store away from oxidizers.
7.2.3.	Special packaging:	/
7.2.4.	Protection against static electricity:	Not required.
7.3.	Specific use:	Each customer differently.

8. Exposure control/personal protection:

8.1.	Exposure limit values:	MV at work place: 15 mg/m ³ TLV = 10 mg/m ³ (5 mg/m ³ resp.)
8.2.	Exposure control:	See sections 3, 5, 6, 7 and 10.
8.2.1.	Health and safety measures at the workplace:	
	Personal protection:	Do not use damaged personal protective equipment.
	Respiratory system protection:	Not required for handling. In case of fire see section 5.3.
	Skin and body protection:	protective clothing, hat and boots.
	Hand protection:	protective gloves.
	Eye protection:	Protective goggles, face shield.
	General work hygiene:	/
8.2.2.	Environment exposure control:	See sections 5, 6, 7, 10, 11,12 and 13. All must be permanently followed and controlled.

9. Physical and chemical properties:

9.1.	General information:	
	- appearance	White suspension
	- odour	Odourless
9.2.	Important health, safety and ecological information:	
	- pH:	3,5-4,5
	- Boiling point:	105 - 110°C
	- Melting point:	N.a.
	- Flash point:	Not flammable
	- Ignition point (for solids and gases):	Not flammable
	-Explosive properties (upper/lower	Not explosive

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	border):	
	- Oxidation properties:	N.a.
	- Vapour pressure:	N.a.
	- Relative density:	1,10 g/cm ³ (25°C)
	- Solubility (in water and fats):	Insoluble in water
	- Partition coefficient: n-octanol/water:	N.a.
	- Other data:	/
	- Note:	/

10. Stability and reactivity:

10.1.	Stability and reactivity:	Stable and non-reactive under normal conditions of use and transport.
10.1.1.	Conditions to avoid:	N.a.
10.1.2.	Incompatibility with other substances:	Oxidizing agents– see section. 7.2.2.
10.2.	Hazardous products of decomposition:	Na ₂ O
10.3.	Other data:	/

11. Toxicological information:

11.1.	Acute effects (acute toxicity, irritation and corrosivity):	N.a.
11.2.	Chronic toxicity or repeated dose toxicity:	N.a.
11.3.	Oversensibility:	N.a.
11.4.	Specific effects (CMR effects-carcinogenity, mutagenicity and toxicity for reproduction):	N.a.

12. Ecological information:

12.1.	Ecotoxicity:	N.a.
12.2.	Mobility:	/
12.3.	Persistence and degradability:	Product is practically insoluble in water (less than 1 %) and conventional solvents.
12.4.	Bioaccumulative potential:	N.a.
12.5.	Results of PBT assesement:	N.a.

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12.6.	Other adverse effects:	N.a.
13. Disposal considerations:		
13.1.	Product:	Dispose of in accordance with local and national regulations.
13.2.	Contaminated packaging:	Cleaning with water or incineration with appropriate equipment.
14. Transport information:		
14.1	ADR, RID:	Product not classified as dangerous according to transport legislation.
14.2.	UN number:	/
14.3.	Name:	/
14.4.	Class:	/
14.5.	Classification code:	/
14.6.	Packaging group:	/
14.7.	Hazard label:	/
14.8.	Tunnel restriction code (TRC):	/
15. Regulatory information:		
15.1.	EC classification, letter, hazard labels, S and R (with the text), special regulations:	
15.1.1.	Classification:	/
15.1.2.	Labelling:	/
15.1.3.	Risk Phrases:	/
15.1.4.	Safety Phrases:	/
15.1.5.	Special provisions:	This substance is not classified in Annex I of Directive
15.2.	Regulations /Standards:	Rules and regulations regarding classification, labelling, and packaging of hazardous substances and compounds Regulations regarding chemicals.
16. Other information:		
16.1.	Write out full text of any R Phrases referred to under heading 2 and 3 of the SDS:	/
16.2.	Staff training:	Safety at Work Certificate. Handling of Hazardous Substances Certificate.
16.3.	Recommended or restricted use of product:	No limitations.

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16.4.	Instructions:	<p>Safety Data Sheet is to be used only in combination with the product Technical Sheet. Safety Data Sheet cannot be a substitute for Technical Sheet.</p> <p>All information in the above paragraphs of the present Safety Data Sheet are obtained from our current expertise and experience with the substance, including the instructions for safe application, transport, storage, accident measures, first aid, and personal protective equipment.</p> <p>Customer is responsible for strict following of these instructions and adherence to the rules laid out, and must also learn and adhere to any other local (national) legislation and/or regulations. Furthermore, the information in this Safety Data Sheet does not relieve the user of any obligation to comply with legislation relevant for the field of the user's activity.</p>
16.5.	Sources:	<p>Rules (Official Gazette of Republic of Slovenia Nos.: 110/2003, 16/2008, 104/2003, 67/2005, 84/2006, 106/2006, 34/2008, 137/2006, 53/2007,9/2005, 9/2007, 9/2003 , 54/2007, 88/2008, 23/2008, 110/2007</p> <p>Regulations on Classification, Packaging and Labeling of Hazardous substances (Official Gazette of Republic of Slovenia Nos.: 35/2005 and 54/2007)</p> <p>Regulation (EC) No 1907/2006</p> <p>Directive 67/548/EEC; 793/93EEC</p> <p>Directive 2006/8/EC, 2008/58/EC</p>
16.6.	Revised issue:	November the 7th, 2008