

Safety Data Sheet



Product name:

Sofnocat 514

Document N°: LB01-00407

Issue: 2

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Compiled in accordance with REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758
Prepared according to GB CLP which is the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain

Section 1 IDENTIFICATION OF SUBSTANCE / PREPARATION AND OF THE COMPANY		
1.1	Product identifier	Sofnocat 514
	Unique Formula Identifier (UFI)	Not applicable as this substance is not classified for health or physical hazards
1.2	Relevant use(s) / misuse(s)	Precious metal catalyst on aluminium oxide support
1.3	SDS supplier	Molecular Products Ltd, Parkway, Harlow Business Park, Harlow, Essex, CM19 5FR, UK
1.4	Emergency contact (global)	+44 (0) 1279 445111 (office hours) / +44 (0)1865 407333 (24-hour emergency number, English speaking) sds@molprod.com (email)
	Emergency contact (other)	China: 400 120 6011, Mexico: +52 555 004 8763, Chile: +56 225 829 336, Brazil: +55 11 3197 5891

Section 2	HAZARDS IDENTIFICATION			
2.1	Classification of the substance or mixture			
2.1.1	Classification according to Regulation (EC) No 1272/2008 (CLP/GHS)		Not classified	
2.1.2	This product is defined as a “special mixture” where the properties of the metals, metal oxides and the inorganic metal substances are modified by inclusion within the matrix of the mixture. As such, it does not present a hazard to human health and according to Annex I of Regulation (EC) No. 1272/2008, labelling is not required			
2.1.3	Additional information: None			
2.2	LABELLING ELEMENTS			
2.2.1	Labelling in accordance with EC Regulation No 1272/2008 (CLP/GHS)			
	Pictogram(s)	Not classified	Signal word	Not classified
	Hazard statements	Not classified	Precautionary statements	Not classified
2.3	Other hazards			
	Dust may cause irritation of eyes, skin, nose and throat. Contains substances that have been assigned a Workplace Exposure Limit (WEL)			

Section 3 COMPOSITION / INFORMATION ON INGREDIENTS						
	Chemical characterisation	Mixture of inorganic substances				
	Chemical name	CAS-No	EC no.	Classification	REACH Registration No.	Concentration
	Platinum	7440-06-4	231-116-1	Not classified	01-2120733612-61-XXXX	> 0.2%
	Palladium	7440-05-3	231-115-6	Not classified	01-2120140175-66-XXXX	> 0.5%
	Tin (IV) oxide	18282-10-5	242-159-0	Not classified	01-2119946062-44-XXXX	> 2.1%
	Aluminium oxide	1344-28-1	215-691-6	Not classified	01-2119529248-35-XXXX	< 97.0%

Section 4 FIRST AID MEASURES		
4.1	Description of measures	
	Inhalation	Remove casualty to fresh air and provide warmth and rest. Seek medical advice
	Skin contact	Clean areas of skin affected with soap and plenty of water. Seek medical advice
	Eye contact	Wash out eye thoroughly with plenty of water until irritation subsides. If necessary, consult an eye specialist/ophthalmologist
	Ingestion	If swallowed, do NOT induce vomiting. Drink plenty of water and, if necessary, seek medical advice
4.2	Most important effects/symptoms	None known
4.3	Immediate/special treatment	Treatment as described above

Section 5 FIRE FIGHTING MEASURES		
5.1	Extinguishing media	Water, foam, CO ₂ , powder, are all suitable
5.2	Special hazards	Material is non-combustible. Packaging may be combustible
5.3	Advice for fire fighters	Self-contained breathing apparatus may be required

Section 6 ACCIDENTAL RELEASE MEASURES		
6.1	Personal precautions, protective equipment and emergency procedures	For non-emergency personnel: <ul style="list-style-type: none"> - Protective equipment: Adhere to personal protective measures - Emergency procedures: Avoid inhaling dust. Avoid skin and eye contact For emergency responders: No data
6.2	Environmental precautions	Do not allow to get into wastewater or waterways; if this occurs, inform the relevant water authority at once
6.3	Methods and materials for containment and cleaning up	For containment: Not required as substance is a solid For cleaning up: In the event of spillage, take up mechanically (e.g. sweep or vacuum up) into tightly closed containers. Adhere to personal protective measures. Label container and dispose of as prescribed Other information: No data
6.4	Reference to other sections	See section 8 for personal protective equipment

Section 7 HANDLING AND STORAGE		
7.1	Precautions for safe handling	Protective measures: Handle in accordance with good hygiene and safety practice, avoid dust formation and wear suitable PPE Measures to prevent fire: No data Measures to prevent aerosol and dust generation: No data Measures to protect the environment: No data Advice on general occupational hygiene: No data
7.2	Conditions for safe storage	Technical measures and storage conditions: No data Packaging materials: No data Requirements for storage rooms and vessels: Ensure adequate ventilation of the storage area. Keep containers tightly closed, cool and dry Storage class: No data Further information on storage conditions: None
7.3	Specific end use(s)	Recommendations: See section 1.2 Industrial sector specific solutions: No data

Section 8 EXPOSURE CONTROLS / PERSONAL PROTECTION									
8.1	Workplace Exposure Limits (WELs) have been assigned by the HSE (EH40/2011)								
	TWA (8 hours)	ppm	5		mg/m ³	Data for platinum metal			
	TWA (8 hours)	ppm	2		mg/m ³	Data for tin compounds (as Sn)			
	STEL (15 mins)	ppm	4		mg/m ³	Data for tin compounds (as Sn)			
	Substance name	Platinum							
	EC number	231-116-1			CAS number	7440-06-4			
	DNELs								
		Workers				Consumers			
	Route of exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effects local	Acute effects systemic	Chronic effects local	Chronic effects systemic
	Oral	Not required				No hazard identified	No hazard identified	No hazard identified	No hazard identified
	Inhalation	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified
	Dermal	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified
	PNECs								
	Environmental protection target				PNEC				
	Fresh water				No hazard identified				
	Freshwater sediments				No hazard identified				
	Marine water				No hazard identified				
	Marine sediments				No hazard identified				

	Food chain					No potential to cause toxic effects if accumulated (in higher organisms) via the food chain			
	Microorganisms in sewage treatment					No hazard identified			
	Soil (agriculture)					No hazard identified			
	Air					No hazard identified			
	Substance name	Palladium							
	EC number	231-115-6			CAS number	7440-05-3			
	DNELs								
		Workers				Consumers			
	Route of exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effects local	Acute effects systemic	Chronic effects local	Chronic effects systemic
	Oral	Not required				No hazard identified	No hazard identified	No hazard identified	No hazard identified
	Inhalation	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified
	Dermal	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified	No hazard identified
	PNECs								
	Environmental protection target						PNEC		
	Fresh water						0.027 µg/L		
	Freshwater sediments						0.274 mg/kg sediment dw		
	Marine water						0.003 µg/L		
	Marine sediments						0.027 mg/kg sediment dw		
	Food chain						No potential to cause toxic effects if accumulated (in higher organisms) via the food chain		
	Microorganisms in sewage treatment						1.46 mg/L		
	Soil (agriculture)						0.012 mg/kg soil		
	Air						No hazard identified		
	Substance name	Tin (IV) dioxide							
	EC number	242-159-0			CAS number	18282-10-5			
	DNELs								
		Workers				Consumers			
	Route of exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effects local	Acute effects systemic	Chronic effects local	Chronic effects systemic
	Oral	Not required					2 mg/m³		2 mg/m³
	Inhalation	No hazard identified	2 mg/m³	No hazard identified	2 mg/m³	No hazard identified	6 mg/m³	No hazard identified	6 mg/m³
	Dermal	No hazard identified	5.7 mg/m³	No hazard identified	5.7 mg/m³	No hazard identified	2 mg/m³	No hazard identified	2 mg/m³
	PNECs								
	Environmental protection target						PNEC		
	Fresh water						0.1 mg/L		
	Freshwater sediments						No data available; testing technically not feasible		
	Marine water						0.01 mg/L		
	Marine sediments						No data available; testing technically not feasible		
	Food chain						No potential for bioaccumulation.		
	Microorganisms in sewage treatment						100 mg/L		
	Soil (agriculture)						No data available; testing technically not feasible		
	Air						No hazard identified		
8.2	Exposure controls								
	Appropriate engineering controls	Substance/mixture related measures to prevent exposure during identified uses: No data Structural measures to prevent exposure: Provide adequate ventilation (e.g., local exhaust ventilation) Organisational measures to prevent exposure: No data Technical measures to prevent exposure: No data							
	Personal protection equipment	Observe normal standards for handling chemicals Wash hands before breaks and after work Avoid contact with skin and eyes. Avoid inhalation of dust if raised							

		Wear personal protective equipment appropriate to the task (see below)
	Eye and face protection	Safety goggles if risk of eye contamination EN166
	Skin protection	Hand protection: Rubber gloves (consider your own risk assessment, e.g. breakthrough times, rates of diffusion and degradation, tasks undertaken) EN 374 Other skin protection: Protective overalls
	Respiratory protection	Approved dust mask or respirator (e.g. EN 149:2001 FFP3) for dust if ventilation is insufficient
	Thermal hazards	No information

Section 9		PHYSICAL AND CHEMICAL PROPERTIES		
Physical state		Granules, pellets, beads, monoliths	Colour	Grey or black
Odour		Odourless	pH	Not determined
Boiling pt/range		Not determined	Melting point/freezing point	Not determined
Flash point		Not applicable	Relative density	Not determined
Solubility		Insoluble	Decomposition temperature	Not applicable
Evaporation rate		Not applicable	Flammability	Not applicable
Lower and upper explosion limit		Not applicable	Vapour pressure	Not applicable
Relative vapour density		Not applicable	Partition coeff. LogPoct/water	Not applicable
Auto-ignition temperature		Not applicable	Kinematic viscosity	Not applicable
Explosive properties		Not applicable	Oxidising properties	Not applicable
Particle characteristics		Not applicable		
9.2	Other information	None		

Section 10 STABILITY AND REACTIVITY		
10.1	Reactivity	Heat is generated when exposed to materials which oxidise easily in air
10.2	Chemical stability	Stable under normal conditions of handling
10.3	Hazardous reactions	None known
10.4	Conditions to avoid	Materials which oxidise easily in air
10.5	Incompatible material	None known
10.6	Hazardous decomposition products	None known

Section 11 TOXICOLOGICAL INFORMATION			
11.1	Information on toxicological effects: No data on the finished product		
	Acute toxicity	Not classified for any component	Not determined
	Skin corrosion/irritation	Not classified for any component	
	Serous eye damage/irritation	Not classified for any component	
	Respiratory or skin sensitisation	Not classified for any component	
	Germ cell mutagenicity	Not classified for any component	
	carcinogenicity	Not classified for any component	
	Reproductive toxicity	Not classified for any component	
	STOT-single exposure	Not classified for any component	
	STOT-repeated exposure	Not classified for any component	
	Aspiration hazard	Not classified for any component	
	Other information	Material has low order of toxicity by ingestion	

Section 12 ECOLOGICAL INFORMATION					
Information on ecotoxicity effects on finished product not available					
None of the components classified for the environment					
12.1	Toxicity	LC ₅₀	Aquatic organisms		mg/l No data available
12.2	Degradability	Not determined	12.3	Bio-accumulative potential	Not determined
12.4	Mobility in soil	Not determined	12.5	PBT/vPvB assessment	Not applicable
12.6	Other adverse effects	Do not allow to get into wastewater or waterways. If this occurs, inform the relevant water authority at once			

Section 13 DISPOSAL CONSIDERATIONS		
13.1	Advice on disposal	If possible, recycle to supplier or approved recycling company. If not (e.g. designated as waste), dispose of in accordance with national and local authority regulations, e.g. The Hazardous Waste (England & Wales) Regulations 2005
	Contaminated packaging	Treat empty containers in the same way as the product: if possible, wash out thoroughly and recycle

Section 14 TRANSPORT INFORMATION					
14.1	United Nations number (ADR, IMDG, IATA)	Not classified	14.2	Proper shipping name (ADR, IMDG, IATA)	Not classified
14.3	Transport class(s) (ADR, IMDG, IATA)	Not classified	14.4	Packing group (ADR, IMDG, IATA)	Not classified
14.5	Environmental Hazard (ADR, IMDG, IATA)	The product should not be marked as a marine pollutant	14.6	Special procedures (ADR, IMDG, IATA)	Not applicable
14.7	Transport in bulk	Not applicable			

Section 15 REGULATORY INFORMATION		
15.1	Safety, health and environmental regulations	The product is classified in accordance with EC Regulation 1272/2008 (CLP). Other regulatory information and provisions are not applicable for this product
15.2	Chemical safety assessment	Not applicable

Section 16 OTHER INFORMATION		
	Further information	The SDS has been revised in accordance with EC Regulation 1272/2008 (CLP) and REACH Annex II update June 2020
		Comply with COSHH Regulations
	Sources of data	Other suppliers' safety data sheets, EH40 (2011)
	Prepared by	Dr Patricia Wormald, Molecular Products, pw@molprod.com Neil Stearn, Cambridge Environmental Assessments, neil.stearn@cea-res.co.uk
	Date of issue	30 August 2021
	Classification according to Regulation (EC) No 1272/2008	Classification procedure
	Not classified	
	This information is based on our present state of knowledge and is intended to describe our products from the point of view of the safety requirements. It should not be construed as guaranteeing specific problems	