




# MATERIAL DATA SAFETY SHEET TALC

Plaintiff's Exhibit  
No.  
**P-37**

Section 1. Product and Company Identification	
<b>Product Names</b>	
Grade 25 USP Imperial 250 USP Imperial 500 USP Imperial 1890 USP/BC Suprafino HP USP Supreme H USP	Imperial 180 USP Imperial 400 USP Imperial 1885L USP/BC Imperial 1892L USP/BP/EP/BC Supra H USP
	Imperial 200 USP Imperial 400Y USP Imperial 1889L USP/BP/EP/BC Olympic H USP Olympic HY USP
<b>Synonyms</b>	Talcum powder, Soapstone, Steatite
<b>Chemical Name</b>	Talc ; Hydrous magnesium silicate
<b>CAS#</b>	14807-96-6
<b>Chemical Family</b>	Phyllosilicates
<b>Manufacturer</b>	Luzenac America, Inc. 8051 E. Maplewood Avenue, Bldg 4 Greenwood Village, CO 80111 Toll-free +1-800-325-0299 (General Information)
<b>Emergency Health Information (24 hrs)</b>	303-623-5716

Section 2. Composition/Information on Ingredients			
Substance	CAS#	% by Weight	TLV - TWA
Talc	14807-96-6	98-100	2 mg/m3 respirable fraction (ACGIH)
Dolomite	16389-88-1	0-2	Use Talc TLV for total exposure measurements

Section 3. Health Hazards Identification and Emergency Overview	
<b>Emergency Overview</b>	Under normal conditions of use, this product is not expected to create any unusual emergency hazards. This product is <b>NOT</b> flammable, <b>NOT</b> reactive, <b>NOT</b> explosive, has <b>NO</b> flash point, and poses <b>NO</b> special hazards in the presence of fire.
<p>Potential Health Effects from Acute and Chronic Occupational Exposures to Talc <b>TARGET ORGANS</b></p>  <p><b>LUNGS, RESPIRATORY SYSTEM</b></p>	
<b>Inhalation</b>	<p><b>ACUTE:</b> Exposure to a large concentration of air-born dust of this material may cause mechanical irritation of the mucous membranes and respiratory tract.</p> <p><b>CHRONIC:</b> Repeated or prolonged inhalation of air-born dust of this material may cause scarring of the lungs (pulmonary fibrosis), with shortness of breath, chronic cough, and respiratory assisted heart failure. Prolonged exposure to talc can produce symptomatic talc pneumoconiosis (talcosis).</p>
<b>Skin Contact</b>	<p><b>ACUTE:</b> Direct contact may cause dryness, or may cause mild irritation if an allergic predisposition exists.</p> <p><b>CHRONIC:</b> Prolonged contact may cause dryness of the skin, or may cause mild irritation if an allergic pre-disposition exists</p>
<b>Eye Contact</b>	<p><b>ACUTE:</b> Direct contact with dust may cause mechanical irritation of the eyes.</p> <p><b>CHRONIC:</b> Repeated exposure may cause conjunctivae inflammation.</p>
<b>Ingestion</b>	<p><b>ACUTE:</b> This material is considered to be harmless and inert when ingested.</p> <p><b>CHRONIC:</b> Repeated ingestion of large doses of talc for 13 and 10 successive days by rabbits and mice revealed negative teratogenic and carcinogenic results.</p>






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Section 4. First Aid Measures	
<b>Inhalation</b>	Remove from exposure area to fresh air. If breathing has stopped, perform artificial respiration and get medical attention immediately. Keep person warm and at rest. Treat symptomatically and supportively.
<b>Skin Contact</b>	Apply common skin moisturizers to relieve dryness. Irritations are uncommon; however, if irritation or redness develops, seek medical attention. Broken skin can be cleansed with mild soap and water.
<b>Eye Contact</b>	Wash eyes with large amounts of water or normal saline solution. If irritation or redness develops, seek medical attention.

Section 5. Fire Fighting Measures	
<b>Flammability</b>	This product is <b>NOT</b> flammable, <b>NOT</b> reactive, <b>NOT</b> explosive, has <b>NO</b> flash point, and poses <b>NO</b> special hazards in the presence of fire. Firefighters require <b>NO</b> special protective equipment or precautions.

Section 6. Accidental Release Measures	
<b>Small Spill</b>	Use vacuum to clean up spillage. Place in sealed container.
<b>Large Spill</b>	For large spills, shovel or sweep up (while keeping dispersion of dust in air to a minimum) and place into suitable sealed containers for reclamation or later disposal. Residue should be cleaned up using a high-efficiency particulate filter vacuum. The use of water wash-down is not recommended. Wet material can cause a surface used for walking to become extremely slippery. Talc is not considered a hazardous waste by RCRA criteria (40 CFR 261).

Section 7. Handling and Storage	
<b>Handling &amp; Storage</b>	Handle in ways to minimize the creation of dust. Preserve product in sealed containers.

Section 8. Exposure Controls & Personal Protection	
<b>Personal Protection</b>	Use NIOSH approved dust respirator. Use safety glasses or dust tight goggles. No special skin protection is usually required, but gloves should be worn by workers susceptible to skin irritation.
  	
<b>Controls</b>	Provide local exhaust or process enclosure ventilation to meet published exposure limits (TLV).

Section 9. Physical & Chemical Properties	
<b>Appearance</b>	White to grayish-white powder
<b>Odor</b>	Slight earthy odor.
<b>Flammability</b>	This product is <b>NOT</b> flammable, <b>NOT</b> reactive, <b>NOT</b> explosive, has <b>NO</b> flash point.
<b>Specific Gravity</b>	2.8 (water = 1.0)
<b>Melting Point</b>	None



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pH	Slightly basic (10% slurry in water)		
Solubility	Water: <1 mg/mL @ 21 C	Acetone : <1 mg/mL @ 21 C	Alkalies: Insoluble
	Ethanol: <1 mg/mL @ 21 C	Cold acids: Insoluble	

Section 10. Stability & Reactivity Data	
Stability	This product is stable, non-reactive, and non-corrosive.
Incompatibility with various substances	Non reactive/none known.

Section 11. Toxicological Information	
Toxicology	<p>NIOSH Registry Number: WW2710000  SAX Toxicity Evaluation: THR: Not available  <b>Carcinogenic Status:</b>  IARC: (2006 in preparation) Has concluded that perineal use of talc-based body powder is possibly carcinogenic to humans (Group 2B). This is not a route of exposure relevant for workers and applies to one specific use of talc only.  IARC: (2006 in preparation) Inhaled talc not containing asbestos or asbestiform fibres not classifiable as a human carcinogen (Group 3)  OSHA: Not listed.  ACGIH: A4 – Not Classifiable as a Human Carcinogen  NTP: Not listed. A 2-year inhalation study demonstrated clear evidence of carcinogenic activity in female rats at exposure levels of 18 mg/m<sup>3</sup>. Some evidence of carcinogenic activity was observed in male rats at the same level. No evidence of carcinogenic activity was found in mice (NTP TR-421).  Tumorigenic Data:  TCLo: ihl-rat 11 mg/m<sup>3</sup>/1Y-I  TDL<sub>0</sub>: imp-rat 200 mg/kg  Other Toxicity Data:  Skin and Eye Irritation Data: skn-hmn 300 ug/3D-I MLD  Teratogenicity (Reproductive Effects Data): Not available.  Mutation Data: Not available.</p>

Section 12. Ecological Information			
Ecological Data			
Species	Alga (( <i>Selenastrum capricornutum</i> ))	<i>Daphnia Magna</i>	<i>Daphnia Magna</i>
Test	Growth inhibition	Acute immobilization	Reproduction
Endpoint	Growth rate 48hr-EC50 48hr-NOEC AUG 72hr-EC50 72hr-NOEC	48hr-EC50	21 day-EC50 21 day-NOEC
Conc. (mg/L)			
FY			
References			

\*AUG=Area Under Growth curve

Section 13. Disposal Considerations	
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**Waste Disposal Information** Talc is not considered a hazardous waste by RCRA criteria (40 CFR 261). Dry material can usually be land-filled. State and Local regulations/restrictions are complex and may differ from Federal regulations. Responsibility for proper waste disposal is with the owner of the waste.

**Section 14. Transport Information**

**Transport Information** U.S. Department of Transportation - DOT: No classification assigned  
 CANADIAN Transportation of Dangerous Goods: No classification assigned  
 LAND Transport - ADR/RID: No classification assigned  
 AIR Transport - IATA/ICAO: No classification assigned (International Air Transport Association/International Civil Aviation Organization)  
 MARITIME Transport - IMDG: No classifications assigned International Maritime Dangerous Goods)  
 HARMONIZED Tariff Code: Talc – crushed or powdered. 2526.20.00. (Stat. Suffix 00)  
 EPA TSCA 12(B) Export Notification: Not listed

**Section 15. Regulatory Information**

**Chemical Inventories** EPA TSCA Status: Listed (CAS # 14807-96-6) EINECS (European No: 238-877-9)  
 CEPA Domestic Substance List – DSL: Listed CEPA Non-domestic substance List – NDSL: Not listed  
 AICS (Australian – NICNAS) ECL (Korean No: KE-32773)  
 SWISS (Giftliste No: G-6939) PICCS (Philippines)  
 ENCS/MITI (Japan) – Talc exempt IECSC (China): Listed

**Other Pertinent Classifications/Regulations**  
 CALIFORNIA PROP 65 Status: Talc not listed  
 STATE RIGHT-TO-KNOW: Talc listed – Illinois; Massachusetts; New Jersey; Pennsylvania; Florida  
 CLEAN AIR ACT – Ozone Depleting Chemicals (ODC's): None  
 CONEG Approved Packaging: Yes  
 NFPA RATINGS: (Scale 0-4) Health = 1, Fire = 0, Reactivity = 0

NPCA: National Paint and Coatings Association – Hazardous Material Identification System (HMIS)

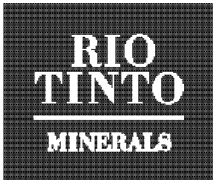
HEALTH: 1\* (Chronic Potential)  
 FLAMMABILITY: 0  
 PHYSICAL: 0  
 PERSONAL PROTECTION: dust respirator, glasses or goggles, gloves

**Section 16. Other Information**

**Label Hazard Warning** CAUTION - PROLONGED EXCESSIVE INHALATION MAY CAUSE LUNG INJURY

**Label Precautions** UTILIZE DUST RESPIRATOR AND EXHAUST VENTILATION. REFER TO MSDS FOR COMPLETE DETAILS

**TYPICAL APPEARANCE OF PRODUCT LABEL**



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<b>Primary References for Key Data</b>	<p>ACGIH - Documentation of TLV's 2001</p> <p>OSHA - Chemical Sampling Information: Talc (Containing no asbestos) (Revised 1/15/1999)</p> <p>OSHA - TALC (Containing no asbestos). OSHA comments from the June 19, 1988 Final Rule on Air Contaminants Project extracted from 54FR2324 <i>et. seq.</i></p> <p>OSHA - Compliance Interpretation Letter dated August 22, 2000 regarding talc products containing less than 1% quartz.</p> <p>OSHA - Guidelines for Employer Compliance (Advisory) 1910.1200 App E</p> <p>NIOSH - Pocket Guide to Chemical Hazards. Talc (containing no asbestos and less than 1% quartz).</p> <p>NIOSH - REL's and General Recommendations for Safety and Health. [TALC (containing no asbestos).</p> <p>AIHA - Hygienic Guides Series – Talc (1982)</p> <p>IARC - Talc Vol: 42 (1987) (p.185) 5. Summary of Data Reported and Evaluation; Supplement 7: (1987) (p.349) Talc Not Containing Asbestiform Fibers (Group 3).</p> <p>CCOHS – Database MSDS FTSS. Network Version 2002.</p> <p>NTP – RoC/NIEHS Database. Network Version 2002.</p>
<b>Glossary</b>	<p>ACGIH – American Conference of Governmental Industrial Hygienists</p> <p>AIHA – American Industrial Hygiene Association</p> <p>CCOHS – Canadian Centre for Occupational Health and Safety</p> <p>IARC – International Agency for Research on Cancer</p> <p>NIOSH – National Institute of Occupational Safety and Health</p> <p>NTP – National Toxicological Program</p> <p>OSHA – Occupational Safety and Health Association</p> <p>PEL – Permissible Exposure Level</p> <p>TLV – Threshold Limit Value</p> <p>TWA – Time Weighted Average</p>
<b>Important Notice</b>	<p>Luzenac America, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.</p>
<b>Issued by</b>	<p>Shripal Sharma Global talc Regulatory Affairs Manager Luzenac America, Inc. E-mail: shripal.sharma@riotinto.com Phone: 1-303-713-5227</p>