Section 1. Chemical Product and Company Identification

Product name:

Mistron TZ-2

CAS Registry Number: 14807-96-6
Product use: Functional mineral for use in paper, paints, ceramics, plastics, etc.
Chemical Formula: 3MgO•4SiO2•H2O
Chemical Name: Hydrous magnesium silicate
Synonyms: Talc, Soapstone, Steatite
Chemical Family: Silicate

Manufacturer
Company name: Imerys Talc America, Inc.
Address: 767 Old Yellowstone Trail
Three Forks, MT 59752
USA
Tel: +1 406-285-5300
Fax: +1 406-285-3323
E-mail: mds.talcamericas@imerys.com

Emergency telephone number: +1 303 623 5716

Section 2. Composition / Information on ingredients

Talc is a natural association of talc, chlorite, dolomite and magnesite.

<table>
<thead>
<tr>
<th>Main constituents</th>
<th>EINECS</th>
<th>CAS.</th>
<th>Amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talc</td>
<td>238-877-9</td>
<td>14807-96-6</td>
<td>&gt;95</td>
</tr>
<tr>
<td>Chlorite</td>
<td>215-285-9</td>
<td>1318-59-8</td>
<td>&lt;2</td>
</tr>
<tr>
<td>Dolomite</td>
<td>240-444-2</td>
<td>16389-88-1</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Magnesite</td>
<td>208-915-9</td>
<td>546-93-0</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Nonhazardous proprietary additive</td>
<td></td>
<td></td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

Section 3. Hazard Identification

Emergency Overview: Under normal conditions of use, this product is not expected to create any unusual emergency hazard. This product is NOT flammable, NOT reactive, NOT explosive, has No flash point, and poses no special hazards in the presence of fire.

Potential Health Effects

Route of Exposure: Inhalation is the primary route of exposure

Inhalation: Acute: Exposure to a large concentration of air-borne dust of this material may cause mechanical irritation of the mucous membranes and respiratory tract.
Chronic: Repeated and prolonged exposure to large amount of talc dust might induce a mild pneumoconiosis. This is caused by lung overload exposure, a non specific particle effect, rather than a specific intrinsic fibrogenic activity of talc.

Skin Contact:
Acute: Direct contact may cause dryness or mild irritation if an allergic predisposition exists
Chronic: Prolonged contact may cause dryness of skin or mild irritation if an allergic predisposition exists

Eye Contact:
Acute: Direct contact with dust may cause mechanical irritation of the eyes
Chronic: Repeated exposure may cause conjunctive inflammation

Ingestion:
Acute: This material is considered to be harmless and inert when ingested.
Chronic: Repeated ingestion of large doses of talc for 13 and 10 successive days by rabbits and mice revealed negative teratogenic and carcinogenic results.

Section 4. First-aid Measures

Eye contact: Rinse with copious quantities of water for at least 15 minutes and seek medical attention if irritation persists.

Skin contact: No special first aid measures necessary.

Inhalation: No special first aid measures. Remove to fresh air and get medical attention in case of serious respiratory problems.

Ingestion: No first aid measures required.

Section 5. Fire-fighting Measures

Extinguishing media: All extinguishing media can be used.

Special hazards arising from the substance or mixture: The product is not flammable, combustible or explosive. No hazardous thermal decomposition.

Advice for fire-fighters: No specific fire-fighting protection is required. Use an extinguishing agent suitable for the surrounding fire.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Avoid airborne dust generation. If the generation of dust is likely, personal protective equipment should be worn in compliance with national legislation.

Environmental precautions: No special requirements. Contain spillage and clean up as indicated below.

Methods and material for containment and cleaning up: Dry product should be cleaned with a shovel or vacuum cleaner while wearing personal protective equipment in compliance with national legislation. Washing the floor with water is not recommended since it may cause the floor to become slippery. However, if talc is already wet, and only in this case, the floor should be thoroughly flushed with water to remove all slipperiness. Talc is not considered a hazardous waste as defined by the US EPA RCRA (40 CFR 261) regulations. Observe all applicable federal, state and local regulations when handling, storing or disposing of this substance.
Section 7. Handling and Storage

**Precautions for safe handling:** Avoid airborne dust generation. Provide appropriate exhaust ventilation at places where airborne dust is generated. In case of insufficient ventilation, wear suitable respiratory protective equipment. Handle packaged products carefully to prevent accidental bursting. If you require advice on safe handling techniques, please contact your supplier.

**Conditions for safe storage:** Keep the product dry and in closed containers.

Section 8. Exposure Controls / Personal Protection

**Control parameters:** Follow workplace regulatory exposure limits for all types of airborne dust (e.g. total dust, respirable dust, and respirable crystalline silica dust). In the U.S., the Occupational Exposure Limit (OEL) for talc containing no asbestos fibers and less than 1% crystalline silica is 2 mg/m³ respirable fraction (ACGIH) measured as an 8 hours TWA (Time Weighted Average). The OSHA exposure limit for talc is 20 mppcf Permissible Exposure Limit (PEL) TWA. For the equivalent limits in other countries, please consult a competent occupational hygienist or the local regulatory authority.

**Engineering controls:** Minimise airborne dust generation. Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below specified exposure limits. If user operations generate dust, use ventilation to keep exposure to airborne particles below the exposure limit. Apply organisational measures, e.g. by isolating personnel from dusty areas. Remove and wash soiled clothing.

**Personal protection:**

- **Eye protection:** Wear safety glasses with side-shields in circumstances where there is a risk of dust generation which could lead to mechanical irritation of the eye.

- **Skin protection:** No specific requirement. For hands, see below.

- **Hand protection:** Protective gloves are not necessary but recommended for those prone to skin irritation or dryness.

- **Respiratory protection:** In case of overexposure to airborne dust concentrations, wear respiratory protective equipment that complies with the requirements of national legislation.

Section 9. Physical and Chemical Properties

**Information on basic physical and chemical properties**

- **Appearance:** White, off white to light grey powder.

- **Odour:** Odourless

- **pH:** 9 - 9.5 (10% slurry in water)

- **Melting point:** >1300°C

- **Flammability (solid, gas):** Not flammable.

- **Relative density:** 2.7 - 2.8 g/cm³

- **Solubility:**
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Solubility in water: Negligible
Solubility in hydrofluoric acid: Yes

Decomposition temperature: >1000°C

Explosivity: Not explosive

Section 10. Stability and Reactivity

Reactivity: Inert, not reactive

Chemical stability: Chemically stable.

Possibility of hazardous reactions: No hazardous reaction.

Conditions to avoid: None.

Incompatible materials: None known.

Hazardous decomposition products: None.

Section 11. Toxicological Information

NIOSH registry number: WW2710000

SAX toxicity evaluation: THR: Not available

Carcinogenic Status:

IARC: In 2006, IARC concluded that inhaled talc not containing asbestos or asbestiform fibers is not classifiable as a human carcinogen (Group 3).

IARC: In 2006, IARC ruled that there is limited evidence that the use of talc-based body powder for perineal dusting is a possible risk factor for ovarian cancer (Group 2B). This is not a route of exposure relevant to workers and applies only to one specific use of talc.

OSHA: Not listed

ACGIH: A4 – not classified as a human carcinogen

WHMIS: Class D-2A

NTP: Not listed. A 2-year inhalation study demonstrated clear evidence of carcinogenic activity in female rats at exposure levels of 18 mg/m3. 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/m3/1Y-1
TDLo: imp-rat 200 mg/kg

Other Toxicity Data: Skin and eye irritation data: skn-hmn 300 ug/3D-I MLD

Teratogenicity (reproductive effects data): Repeated ingestion of large doses of talc for 13 and 10 successive days by rabbits and mice revealed negative teratogenic and carcinogenic results
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Mutation Data: Not available

Section 12. Ecological Information

Toxicity: No data are available on this product. No specific adverse effects known.

Persistence and degradability: No data are available on this product. Product is an inorganic substance and therefore is not considered biodegradable.

Other adverse effects: No specific adverse effects known.

Section 13. Disposal Considerations

Waste disposal information: Talc is not considered a hazardous waste as defined by the US EPA RCRA (40 CFR 261) regulations. Observe all applicable federal, state and local regulations when handling, storing or disposing of this substance.

Disposal guidelines: Where possible, recycling is preferable to disposal. Recycling and disposal of packaging should be carried out by an authorized waste management company. Recycling and disposal of packaging should be carried out in compliance with local regulations. Responsibility for proper waste disposal lies with the owner of the waste.

Section 14. Transport Information

US 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
Maritime Transport – IMDG: No classification assigned
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: The following inventories have been investigated as to the publicly available portion of the lists:

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<th>MINERAL</th>
<th>CAS No.</th>
<th>EINECS (EU)</th>
<th>AICS (Australia)</th>
<th>CEPA (DSL/NDSL) (Canada)</th>
<th>KECI Korean Gazette No. (Korea)</th>
<th>ENCS/ISHL/MITI (Japan)</th>
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<tr>
<td>Talc</td>
<td>14807-96-6</td>
<td>238-877-9</td>
<td>Yes</td>
<td>Yes (DSL)</td>
<td>KE-32773</td>
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<td>Chlorite</td>
<td>1318-59-8</td>
<td>215-285-9</td>
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<td>16389-88-1</td>
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<th>MINERAL</th>
<th>IECSC (China)</th>
<th>PICCS (Philippines)</th>
<th>TSCA (USA)</th>
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<td>Yes</td>
<td>Yes</td>
<td>G-7477</td>
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</table>
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Yes*: There exists a broad category for naturally occurring chemicals, so these minerals are covered by definition, but not specifically listed.

Other Pertinent Classifications/Regulations:

California PROP 65 Status: talc not listed
State Right-To-Know: Talc listed in IL, MA, NJ, PA, FL
Clean Air Act – Ozone depleting chemicals (ODC): None
CONEG Approved Packaging: Yes

National Fire Protection Association (NFPA) Ratings (0-4 scale):
- Health = 0
- Fire = 0
- Reactivity = 0

National Paint and Coating Association (NPCA) – Hazardous Material Identification System (HMIS)
- Health: 1* (chronic potential)
- Flammability: 0
- Physical: 0
- Personal protection: dust respirator, gasses or goggles, gloves

Section 16. Other Information

References and sources:

Glossary

ACGIH – American Conference of Governmental Industrial Hygienists
IARC – International Agency for Research on Cancer
IATA – International Air Transport Association
ICAO – International Civil Aviation Organisation
IMDG – International Maritime Dangerous Goods
NIOSH - National Institute of Occupational Safety and Health
NTP – National Toxicological Program
OSHA – Occupational Safety and Health Association
OEL – Occupational Exposure Limit
PEL – Permissible Exposure Limit
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RID/ADR – The European Agreements Concerning the International Carriage of Dangerous Goods by Rail (RID) and by Road (ADR)
TLV – Threshold Limit Value
TWA – Time Weighted Average
WHMIS – Workplace Hazardous Materials Information System (Canada)

Revisions

- Changed company name

Notice to reader

This material safety data sheet complements the technical data sheets but does not replace them. The information it contains is based on our present knowledge of the product on the date indicated. It is given in good faith. Users should be warned about the risks associated with using the product for a different purpose than that for which it was developed, and particularly for uses for which we are not qualified to give advice.

These regulatory prescriptions are provided with a view to helping users meet their obligations when using this product. This list should not be considered exhaustive and does not exempt users from ensuring that they are not required to comply with any further prescriptions other than those mentioned above concerning product possession and handling for which they are solely responsible.

Only the original English version is authoritative.