# SAFETY DATA SHEET

## 1. Identification

| | |
|---|---|
| **Name of the substance or mixture (trade name)** | **2711A** |
| **Product code** | Part#: 130255/41990716 |
| **Major recommended uses for the substance or mixture** | Test sample. |
| **Specific restrictions for use of the substance or mixture** | Not available. |

**Manufacturer/Importer/Distributor information**

| | |
|---|---|
| **Manufacturer** | |
| **Supplier** | Olympus |
| **Address** | 48 Woerd Ave. Waltham, MA 02453, USA |
| **Telephone** | +1 781-419-3900 |
| **Emergency telephone number** | CHEMTREC<br><br>US: 1-800-424-9300, International: +1 703-527-3887 |

## 2. Hazards identification

**Classification of the substance or mixture**

| | | |
|---|---|---|
| **Physical hazards** | Not classified. | |
| **Health hazards** | Carcinogenicity | Category 1B |
| | Reproductive toxicity | Category 1A |
| | Specific target organ toxicity, repeated exposure | Category 2 (Blood, Kidney, Liver, Nervous system) |
| **Environmental hazards** | Hazardous to the aquatic environment, acute hazard | Category 3 |
| | Hazardous to the aquatic environment, long-term hazard | Category 3 |

**GHS labeling elements, including precautionary statements**

**Hazard symbol(s)**

| | |
|---|---|
| **Signal word** | Danger |
| **Hazard statement(s)** | May cause cancer. May damage fertility or the unborn child. May cause damage to organs (Blood, Kidney, Liver, Nervous system) through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects. |
| **Precautionary statement(s)** | |
| **Prevention** | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. |
| **Response** | IF exposed or concerned: Get medical advice/attention. |
| **Storage** | Store locked up. |
| **Disposal** | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| **Other hazards which do not result in classification** | None known. |
| **Supplemental information** | None. |

## 3. Composition/information on ingredients

**Mixture**

| Common chemical name or technical name | CAS number | Concentration or concentration range |
|---|---|---|
| Lead compounds | - | < 1 |

## 4. First-aid measures

**First-aid measures**

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eye contact** Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth thoroughly. Get medical attention if symptoms occur.

**Most important symptoms/effects, acute and delayed** Dusts may irritate the respiratory tract, skin and eyes. Prolonged exposure may cause chronic effects.

**Personal protection for first-aid responders** IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

**Notes to physician** Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

## 5. Fire-fighting measures

**Means of fire extinguishing**

**Suitable extinguishing media** Use extinguishing agent suitable for type of surrounding fire.

**Unsuitable extinguishing media** None known.

**Specific hazards arising from the chemical** During fire, gases hazardous to health may be formed.

**Special fire fighting procedures** Use water spray to cool unopened containers.

**Protective measures taken by firefighting crews** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Specific methods** Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards** No unusual fire or explosion hazards noted.

## 6. Control measures for spills and leaks

**Personal precautions, protective equipment and emergency procedures**

**To be taken by those who are not involved in rendering emergency services** Keep unnecessary personnel away. Keep upwind. Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust. Local authorities should be advised if significant spillages cannot be contained. Ensure adequate ventilation. For personal protection, see section 8 of the SDS.

**To be taken by those who are involved in rendering emergency services** Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

**Environmental precautions** Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

**Methods and materials for containment and cleaning up** Avoid the generation of dusts during clean-up. Collect dust using a vacuum cleaner equipped with HEPA filter. For waste disposal, see section 13 of the SDS.

## 7. Handling and storage

**Precautions for safe handling** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Should be handled in closed systems, if possible. Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Pregnant or breastfeeding women must not handle this product. Wear appropriate personal protective equipment. Wash thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Store in a well-ventilated place. Store locked up. Store in original tightly closed container.

## 8. Exposure controls/personal protection

**Control parameters** Follow standard monitoring procedures.

**Occupational exposure limits**

**US. ACGIH Threshold Limit Values**

| Components | Type | Value |
|---|---|---|
| Lead compounds (CAS -) | TWA | 0.05 mg/m3 |

**Argentina. OELs. Law 19587 (Establishing the Conditions for Health and Safety in the Workplace) and Decree 351/79 Article 61, Annex III, as amended**

| Components | Type | Value |
|---|---|---|
| Lead compounds (CAS -) | TWA | 0.05 mg/m3 |

**Chile. OELs. Decree No. 594, arts. 61 & 66: Regulating Basic Health and Environmental Conditions in the Workplace and Setting Permissible Levels of Exposure to Chemical and Physical Agents**

| Components | Type | Value | Form |
|---|---|---|---|
| Lead compounds (CAS -) | TWA | 0.04 mg/m3 | Dust and fume. |

**Ecuador. OELs (INEN 2266:2013, 2013-01 2nd rev.: Transport, storage and handling of hazardous materials. Requirements. 1st ed., 1/29, 2013)**

| Components | Type | Value |
|---|---|---|
| Lead compounds (CAS -) | TWA | 0.05 mg/m3 |

**Paraguay. Decree No. 14.390/92 that approves the General Technical Regulation of Safety, Hygiene and Medicine in the Workplace**

| Components | Type | Value |
|---|---|---|
| Lead compounds (CAS -) | TWA | 0.05 mg/m3 |

**Peru. OELs. Decreto Supremo 015-2005-SA (Reglamento sobre Valores Límites Permisibles para Agentes Químicos en el Ambiente de Trabajo)**

| Components | Type | Value |
|---|---|---|
| Lead compounds (CAS -) | TWA | 0.05 mg/m3 |

**Venezuela. OELs. (COVENIN 2253: Permissible Environmental Concentration Limits for Chemical Substances in Workplaces and Biological Exposure Indices)**

| Components | Type | Value |
|---|---|---|
| Lead compounds (CAS -) | TWA | 0.05 ppm |

**Biological limit values**

**ACGIH Biological Exposure Indices**

| Components | Value | Determinant | Specimen | Sampling Time |
|---|---|---|---|---|
| Lead compounds (CAS -) | 300 µg/l | Lead | Blood | * |

* - For sampling details, please see the source document.

**Argentina. Biological Exposure Indexes (BEIs) (Decree 351/1979 )**

| Components | Value | Determinant | Specimen | Sampling Time |
|---|---|---|---|---|
| Lead compounds (CAS -) | 30 µg/dl | Plomo | Blood | * |

* - For sampling details, please see the source document.

**Venezuela. Biological Exposure Indices (IBEs), Table 2, COVENIN 2253**

| Components | Value | Determinant | Specimen | Sampling Time |
|---|---|---|---|---|
| Lead compounds (CAS -) | 30 µg/dl | Plomo | Blood | * |

* - For sampling details, please see the source document.

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn.

**Personal protective measures**

| | |
|---|---|
| **Eyes and face protection** | Wear safety glasses with side shields (or goggles). Eye wash fountain is recommended. |
| **Skin protection** | |
| **Hand protection** | Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier. |
| **Other** | Wear suitable protective clothing. |
| **Respiratory protection** | Wear respirator with dust filter. |
| **Thermal hazards** | Wear appropriate thermal protective clothing, when necessary. |
| **Hygiene measures** | Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Observe any medical surveillance requirements. |

## 9. Physical and chemical properties

**Appearance**

| | |
|---|---|
| **Physical state** | Solid. |
| **Form** | Powder. |
| **Color** | Gray. |
| **Odor** | Not available. |
| **Odor threshold** | Not available. |
| **pH** | Not applicable. |
| **Melting point/freezing point** | Not available. |
| **Initial boiling point and boiling temperature range** | Not available. |
| **Flash point** | Not available. |
| **Evaporation rate** | Not available. |
| **Flammability (solid, gas)** | Non flammable. |
| **Upper/lower flammability or explosive limits** | |
| **Flammability limit - lower (%)** | Not available. |
| **Flammability limit - upper (%)** | Not available. |
| **Explosive limit - lower (%)** | Not available. |
| **Explosive limit - upper (%)** | Not available. |
| **Vapor pressure** | Not available. |
| **Vapor density** | Not available. |
| **Relative density** | Not available. |
| **Solubility(ies)** | Insoluble in water. |
| **Partition coefficient (n-octanol/water)** | Not available. |
| **Auto-ignition temperature** | Not available. |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Not available. |
| **Other physical and chemical parameters** | |
| **Explosive properties** | Not explosive. |
| **Oxidizing properties** | Not oxidizing. |

## 10. Stability and reactivity

| | |
|---|---|
| **Reactivity** | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| **Chemical stability** | Material is stable under normal conditions. |
| **Possibility of hazardous reactions** | No dangerous reaction known under conditions of normal use. |
| **Conditions to avoid** | Avoid dust formation. |
| **Incompatible materials** | Strong oxidizing agents. Halogens. Peroxides. Acids. |

| | |
|---|---|
| **Hazardous decomposition products** | Lead oxides. |

## 11. Toxicological information

**Information on likely routes of exposure**

| | |
|---|---|
| **Inhalation** | May cause damage to organs through prolonged or repeated exposure by inhalation. Dust may irritate respiratory system. |
| **Skin contact** | Dust or powder may irritate the skin. |
| **Eye contact** | Dust may irritate the eyes. |
| **Ingestion** | Expected to be a low ingestion hazard. |
| **Symptoms** | Dusts may irritate the respiratory tract, skin and eyes. |
| **Acute toxicity** | May cause discomfort if swallowed. |
| **Skin irritation and corrosion** | Prolonged skin contact may cause temporary irritation. |
| **Serious eye damage/eye irritation** | Direct contact with eyes may cause temporary irritation. |

**Respiratory or skin sensitization**

| | |
|---|---|
| **Respiratory sensitization** | Not a respiratory sensitizer. |
| **Skin sensitization** | This product is not expected to cause skin sensitization. |
| **Germ cell mutagenicity** | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| **Carcinogenicity** | May cause cancer. |

**ACGIH Carcinogens**

| | |
|---|---|
| Lead compounds (CAS -) | A3 Confirmed animal carcinogen with unknown relevance to humans. |

**Argentina. OELs. Law 19587 (Establishing the Conditions for Health and Safety in the Workplace) and Decree 351/79 Article 61, Annex III, as amended**

| | |
|---|---|
| Lead compounds (CAS -) | A3 Confirmed animal carcinogen with unknown relevance to humans. |

**Chile. OELs. Decree No. 594, arts. 61 & 66: Regulating Basic Health and Environmental Conditions in the Workplace and Setting Permissible Levels of Exposure to Chemical and Physical Agents**

| | |
|---|---|
| Lead compounds (CAS -) | A3 Confirmed animal carcinogen with unknown relevance to humans. |

**Colombia. OELs. Resolution No. 02400: Norms Concerning Working Conditions, Health and Safety in the Workplace**

| | |
|---|---|
| Lead compounds (CAS -) | A3 Animal carcinogen. |

**Ecuador. OELs (INEN 2266:2013, 2013-01 2nd rev.: Transport, storage and handling of hazardous materials. Requirements. 1st ed., 1/29, 2013)**

| | |
|---|---|
| Lead compounds (CAS -) | Group A3 Confirmed animal carcinogen with unknown relevance to humans. |

**IARC Monographs. Overall Evaluation of Carcinogenicity**

| | |
|---|---|
| Lead compounds (CAS -) | 2A Probably carcinogenic to humans. |

**Paraguay. Decree No. 14.390/92 that approves the General Technical Regulation of Safety, Hygiene and Medicine in the Workplace**

| | |
|---|---|
| Lead compounds (CAS -) | A3 Confirmed animal carcinogen with unknown relevance to humans. |

**Venezuela. OELs. (COVENIN 2253: Permissible Environmental Concentration Limits for Chemical Substances in Workplaces and Biological Exposure Indices)**

| | |
|---|---|
| Lead compounds (CAS -) | A3 Animal carcinogen. |

| | |
|---|---|
| **Toxic to reproduction** | May damage fertility or the unborn child. |
| **Specific target organ toxicity - single exposure** | Not classified. |
| **Specific target organ toxicity - repeated exposure** | May cause damage to organs (Blood, Kidney, Liver, Nervous system) through prolonged or repeated exposure. |
| **Aspiration hazard** | Not an aspiration hazard. |
| **Chronic effects** | May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. |

## 12. Ecological information

| | |
|---|---|
| **Ecotoxicity** | Harmful to aquatic life with long lasting effects. |

| | |
|---|---|
| **Persistence and degradability** | No data available. |
| **Bioaccumulative potential** | No data available. |
| **Partition coefficient n-octanol / water (log Kow)** | Not available. |
| **Bioconcentration factor (BCF)** | Not available. |
| **Mobility in soil** | No data available. |
| **Other adverse effects** | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. |

## 13. Considerations on final disposal

**Recommended methods for final destination**

| | |
|---|---|
| **Residual waste** | Dispose of in accordance with local regulations. |
| **Contaminated packaging** | Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. |
| **Local disposal regulations** | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations. |

## 14. Transport information

**National regulations**

**ANTT**

Not regulated as dangerous goods.

**International regulations**

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

| | |
|---|---|
| **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** | Not applicable. |

## 15. Regulatory information

**Federal regulations**

**Chile. Decree No. 594, art. 20: List of Hazardous Wastes that must be Registered with the Sanitary Authority**

Lead compounds (CAS -)

**International regulations**

**Montreal Protocol**

Not applicable.

**Stockholm Convention**

Not applicable.

**Rotterdam Convention**

Not applicable.

**Kyoto protocol**

Not applicable.

**Basel Convention**

Not applicable.

## 16. Other information

| | |
|---|---|
| **Significant information, yet not specifically related to the previous sections** | Not available. |
| **Legends and abbreviations** | Not available. |
| **Disclaimer** | Olympus cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available. |