

TECKROS HRL

SAFETY DATA SHEET

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| 1. | Identification | |
|----|--------------------------|---|
| | Product Identifier/Code | Teckros HRL, Liquid Hydrogenated Gum Rosin Ester |
| | Recommended use | Adhesives, Sealants, Coatings, Wax, and other formulations |
| | Recommended restrictions | None known |
| | Manufacturer | Teckrez, Inc. |
| | Company address | 1845 Town Center Blvd., Suite 110A |
| | | Fleming Island, FL 32003 USA |
| | | Office: 1-904-215-7885 |
| | | Fax: 1-904-215-7797 |
| | | Emergency: 1-904-881-2205 |
| 2. | Hazards Identification | |
| | Physical hazards | Not classified; molten material will cause thermal burns. |
| | Health hazards | Not classified |
| | OSHA defined hazards | Not classified |
| | Label elements | |
| | Hazard Symbol | None |
| | Signal word | None |
| | Hazard statement | None |
| | Precautionary statement | Practice good industrial hygiene. Store in protective environment, away from incompatible |
| | | materials and elevated temperature equipment. Wash hands and other exposed areas after |
| | | handling. Waste disposal in accordance with local requirements. |
| | Storage | Store away from incompatible materials. |
| | Disposal | Dispose of contents/container in accordance with local/regional/national/international |
| | | regulations. |
| | Hazards not otherwise | None known |
| | classified (HNOC) | |
| | | |

3. Composition/Information on Ingredients

| Chemical Name | | CAS number | % |
|-----------------------|--------------------|----------------------------------|---------------------------------------|
| Methyl Ester of H | ydrogenated Rosin | 8050-15-5 | 100% |
| I. First-aid Measures | | | |
| Inhalation | Move exposed per | son to fresh air. Keep person | |
| | warm and at rest. | Get medical attention if symp | toms persist. |
| Skin contact | Flush contaminate | d skin with soap and water. R | emove contaminated clothing |
| | and shoes. Cool as | s quickly as possible if exposed | l to molten material. Do not attemp |
| Get medical atten | | naterial from skin; material wil | I come off as healing occurs. |
| | | ion if symptoms occur. | |
| | | eyes with water for at least 15 | 5 minutes, occasionally lifting |
| the upper and | the upper and low | er eyelids. Check for and rem | ove any contact lenses if easy to do. |
| | Get medical attent | ion if irritation occurs and per | sists. |
| Ingestion | Seek medical atter | ntion. | |

| | Most important symptoms/ effects, acute and delayed Indication of immediate medical attention and special treatment needed | None Burns should be treated as thermal burns; material will come off as healing occurs. |
|----|---|--|
| 5. | Fire-fighting Measures Suitable extinguishing media Unsuitable extinguishing media Specific hazards arising from the chemical | Water spray, dry chemical, carbon dioxide Avoid high pressure extinguisher application which could spread fire. Hazardous decomposition products in the case of a fire includes: CO ₂ , carbon monoxide, smoke. |
| | Specific protective equipment and precautions Specific methods | Appropriate protective clothing and self- contained breathing apparatus (SCBA) with a full-face piece operated in positive pressure mode. Use standard firefighting procedures and consider hazards of other materials. |
| 6. | Accidental Release Measures Personal precautions, protective equipment and emergency procedures Methods and materials for containment and cleaning up Environmental precautions | Use suitable protective equipment. Keep unnecessary personnel away from material. Carefully contain and collect material and place in an appropriate container for disposal. Keep from drains; prevent uncontrolled run-offs. |
| 7. | Handling and Storage Precautions for safe handling Conditions for safe storage, including any incompatibilities | Wash thoroughly after handling. Prevent contact with molten material. Keep container tightly closed in a cool, well-ventilated area. Keep away from ignition sources and static electricity. |

8. Exposure Controls/Personal

8.1 Occupational exposure limits

| USA ACGIH | ACGIH (mh/m ³) | 10 mg/m ³ (inhalable dust) |
|-----------|-------------------------------------|--|
| USA ACGIH | Remark (ACGIH) | Particulates, not otherwise classified |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 15 mg/m ³ (total dust) |
| | | 5 mg/m ³ (respirable dust) |
| USA OSHA | Remark (US OSHA) | Particulates, not otherwise classified |

| 8.2 Exposure controls Appropriate engineering controls | Ensure good ventilation of the work station. Consider explosion proof ventilation equipment. |
|--|--|
| Hand protection | Protective chemical resistant gloves |
| Eye protection | Safety glasses with side shields (or goggles) |
| Skin and body protection | Wear suitable protective clothing, including appropriate clothing for exposure to molten material. |

Respiratory protection

Where exposure through inhalation may occur from use, respiratory protection equipment of approved standard is recommended. Wear appropriate respiratory protection, if occupational exposure limits are exceeded or irritation/sensitivity is experienced.

9. Physical and Chemical Properties

| Appearance | |
|--------------------------|--|
| Physical state | Liquid |
| Form | Liquid |
| Color | Pale yellow |
| Odor | Bland (slight rosin) |
| рН | Not available |
| Melting point | Liquid |
| Initial boiling point | >200°C |
| Flash point | Closed cup >170°C |
| Evaporation rate | Not determined; considered negligible |
| Auto ignition tempera | ature Not determined |
| Flammability (solid, g | as) Not determined |
| Decomposition temp | erature Not established. Very low hazard expected at normal operating conditions. |
| Density | 1.02 g/cm ₃ (8.549 lb(s)/gal) |
| Solubility | Insoluble in water. Good solubility in aliphatic and aromatic hydrocarbons. Minimal solubility |
| | in alcohols. |
| Viscosity | 1,500 cps @ 40°C |
| 10. Stability and Reacti | vity |
| Reactivity and | Non-reactive and stable under normal operating conditions. Decomposition can occur at |
| chemical stability | elevated temperatures. |
| Possibility of hazardo | · |
| reactions | |
| Conditions to avoid | Open flame, static electricity |
| Incompatible materia | |
| Hazardous decompos | |
| products | |
| 11. Toxicology Informa | tion |
| Information on likely | |
| Inhalation | Fumes may irritate respiratory system. |
| Skin Contact | Molten material causes thermal burns |

| Inhalation | Fumes may irritate respiratory system. | | |
|--------------------------------------|---|--|--|
| Skin Contact | Molten material causes thermal burns. | | |
| Eye Contact | Direct contact with eyes may cause temporary irritation | | |
| Information on toxicological effects | | | |
| Acute toxicity | Based on available data, the classification criteria are not met. | | |
| | | | |

| Components | Species | Test Results |
|---|--------------------------|---|
| Rosin Ester (CAS Proprietary) | | |
| Acute Dermal LD50 | New Zealand white rabbit | >2,000 mg/kg, 14 days at this dose, no death occurred; OECD 402 |
| Acute Oral LD50 | Sprague-Dawley rat | >2,000 mg/kg, 14 days at this dose, no death occurred; OECD 425 |
| *Estimates for product may be based on additional component data not shown. | | |

| | Skin corrosion/irritation Serious eye damage/irritation Respiratory sensitization Skin sensitization Germ cell mutagenicity Carcinogenicity OSHA Specifically Regulated Substances (29 CFR 1910. 1001-1050) | No data available No data available No data available This product is not expected to cause skin sensitization. No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Not listed. |
|-----|---|---|
| | Reproductive toxicity Specific target organ toxicity-single exposure | This product is not expected to cause reproductive or developmental effects. Not classified |
| | Specific target organ toxicity-repeated exposure | Not classified |
| | Aspiration hazard | Not available |
| 12. | Ecological Information | |
| | Ecological impact statement | This product is not classified as environmentally hazardous. This does not exclude the possibility that large or frequent spills could be environmentally damaging. This product is not readily biodegradable. |
| 13. | Disposal Considerations Disposal instructions | Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. |
| 14. | Transport Information DOT IATA IMDG | Not regulated as dangerous goods Not regulated as dangerous goods Not regulated as dangerous goods |
| 15. | Regulatory Information 15.1. US Federal regulations | This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the US EPA TSCA inventory list. |
| | TSCA Section 12(b) Export Notification (40 CFR 707, subpoint D) | Not regulated |

| | CERCLA Hazardous Substance | Not listed |
|-----|---|---|
| | List (40 CFR 302.4) | |
| | OSHA Specially Regulated | Not listed |
| | Substances | |
| | (29 CFR 1010.1001-1050) | |
| | Superfund Amendments and | |
| | Reauthorization Act 1986 (SARA) | |
| | Hazard Categories | Immediate Hazard: No; Delayed Hazard: No; Fire Hazard: No; Pressure Hazard: No; |
| | | Reactivity Hazard: No |
| | SARA 302 Emergency Hazardous | Not regulated |
| | Substance | |
| | SARA 304 Emergency Release | Not regulated |
| | Notification | |
| | SARA 311/312 Hazardous | No |
| | Chemical | |
| | SARA 313 TRI Reporting | Not regulated |
| | Clean Air Act (CAA) Section 112 | Not regulated |
| | Hazardous Air Pollutants | |
| | (HAPs) list | |
| | Clean Air Act (CAA) Section 112(r) | Not regulated |
| | Accidental Release Prevention | |
| | (40 CFR 68.130) | |
| | Safe Drinking Water Act (SDWA) | Not regulated |
| | 15.2. US State regulations | |
| | California Controlled | Not listed |
| | Substances, Dept. of Justice | |
| | (CA Health and Safety Code | |
| | Section 11100) | |
| | Massachusetts RTK-Substance | Not regulated |
| | List | |
| | New Jersey Worker and | Not listed |
| | Community RTK Act | |
| | Pennsylvania Worker and | Not listed |
| | Community RTK Law | |
| | Rhode Island RTK | Not listed |
| | | |
| 16. | 16. Other Information, including date of preparation or last revision | |
| | NFPA health hazard | 1 |
| | NFPA fire hazard | 1 |
| | NFPA reactivity | 0 |
| | HMIS III Rating | |
| | Health | 1 |
| | Flammability | 1 |
| | Physical hazard | 0 |
| | Personal protection | See section 8 of SDS |
| | - | אר א |
| | Version | 1.0 |
| | Date of issue | June 1, 2015 |
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