**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

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| **1.1 Product identifier** |
| **Trade name:** | **Radex 2K PLASTIC ADHESIVE** |
| **Article number** | 220000 |
| **1.2 Relevant identified uses of the substance or mixture and uses advised against** |
| **Application of the substance** | Two components, polyurethane based, adhesive. |
| **1.3 Details of the supplier of the safety data sheet** |
| **Manufacturer/Supplier:** | RADEX-EUROPE Ltd. Tel: +3716738778 |
| **Person responsible for the MSDS** | aigars@radex-europe.lv |
| **1.4 Emergency telephone number:** |
| **Product safety Department** | Tel: +3716738778 |

**SECTION 2: Hazards identification**

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| **2.1 Classification of the substance or mixture** |
| The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.**2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.**

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| **Hazard classification and indication:** | **Hazard pictograms:** | **Hazard statements:** |
| Eye irritation, category 2 | GHS07 |  H319 Causes serious eye irritation. |

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| **2.2 Label elements** |  |
| **Labelling according to Regulation (EC) No 1272/2008** |
| **Hazard pictograms:** |

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| **Signal word :** | Warning |
| **Contains:** | **-** |
| **Hazard statements:** | H319 Causes serious eye irritation. |
| **Precautionary statements:** |  P264 Wash hands thoroughly after handling. P280 Wear protective gloves / eye protection / face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice / attention. |
| **2.3. Other hazards.**  | On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%. |
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|  **SECTION 3. Composition/information on ingredients.****3.1. Substances.**Information not relevant.**3.2. Mixtures.** |
| **Dangerous components** | **CAS** **EINEC** **Index** | **Conc. %** | **Classification 67/548/EEC.** | **Classification 1272/2008 (CLP).)** |
| ***Glyceryl poly-(oxypropylene)triamine*** | CAS: 64852-22-8EINECS: -Reg.nr.: - | 2.5-3 | R52/53, Xi R38, Xi R41 | Eye Dam. 1 H318, Skin Irrit. 2 H315,Aquatic Chronic 3 H412 |
|  | The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet. |
| **Note:** | Upper limit is not included into the range. |

**SECTION 4. First aid measures.**

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| **4.1. Description of first aid measures.** |
| **INHALATION** | Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers. |
| **SKIN** | Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention. |
| **EYES** | Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention. |
| **INGESTION** | Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor. |
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| **4.2. Most important symptoms and effects, both acute and delayed.** |

For symptoms and effects caused by the contained substances, see chap. 11. **4.3. Indication of any immediate medical attention and special treatment needed.**No further relevant information available. |

**SECTION 5. Firefighting measures.**

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| **5.1. Extinguishing media.** |  |
| **SUITABLE EXTINGUISHING EQUIPMENT** | The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray. |
| **UNSUITABLE EXTINGUISHING EQUIPMENT** | None in particular. |
| **5.2. Special hazards arising from the substance or mixture.** |
| **HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE** | Do not breathe combustion products. |
| **5.3. Advice for firefighters:** |
| **SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS** | GENERAL INFORMATIONUse jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERSNormal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137). |
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**SECTION 6. Accidental release measures.**

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| **6.1. Personal precautions, protective equipment and emergency procedures.** |
| **Personal precautions** | Block the leakage if there is no hazard.Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures. |
| **6.2. Environmental precautions.** |
| **Environmental precautions.** | The product must not penetrate into the sewer system or come into contact with surface water or ground water |
| **6.3. Methods and material for containment and cleaning up.** |
| **Disposal methods** | With inert absorbent material.Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13. |
| **6.4. Reference to other sections.** |
|  | Any information on personal protection and disposal is given in sections 8 and 13. |
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**SECTION 7. Handling and storage.**

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| **7.1. Precautions for safe handling.** |
|  **Precautions for safe handling.** | Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. |
| **7.2. Conditions for safe storage, including any incompatibilities.** |
|  | Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.Storage class TRGS 510 (Germany):10 |
| **7.3. Specific end use(s).** |
|  | Information not available. |
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**SECTION 8. Exposure controls/personal protection.**

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| **8.1. Control parameters.** |
| Information not available.**8.2. Exposure controls.**As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must be CE marked, showing that it complies with applicable standards.Provide an emergency shower with face and eye wash station. |
| **RESPIRATORY PROTECTION** | When used in confined spaces, prolonged work, wear protective mask for the whole face with filter "A". In case that the oxygen concentration in the air of work room falls under 17 %, use independent respirator with an open circle on the compressed air.  |
| **HAND PROTECTION** | Protect hands with category III work gloves (see standard EN 374).The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use. |
| **EYE PROTECTION** | Wear airtight protective goggles (see standard EN 166). |
| **SKIN PROTECTION** | Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing. |
| **ENVIRONMENTAL EXPOSURE CONTROLS** | The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards. |

**SECTION 9. Physical and chemical properties.**

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| **9.1. Information on basic physical and chemical properties.** |
|  Appearance | liquid |
|  Colour | black |
|  Odour | Not available. |
|  Odour threshold. | Not available. |
|  pH. | Not available. |
|  Melting point / freezing point. | Not available. |
|  Initial boiling point. | > 200 °C. |
|  Boiling range. | Not available. |
|  Flash point. | 182°C. |
|  Evaporation rate | Not available. |
|  Flammability (solid, gas) | Not available. |
|  Lower inflammability limit. | Not available. |
|  Upper inflammability limit. | Not available. |
|  Lower explosive limit. | Not available. |
|  Upper explosive limit. | Not available. |
|  Vapour pressure. | 1 Pa |
|  Vapour density | Not available. |
|  Relative density. | 0.98 Kg/l |
|  Solubility | Not available. |
|  Partition coefficient: n-octanol/water | Not available. |
|  Auto-ignition temperature. | Not available. |
|  Decomposition temperature. | Not available. |
|  Viscosity | 2500 mPa |
|  Explosive properties | Not available. |
|  Oxidising properties | Not available. |
| **9.2. Other information.** |  |
|  VOC (Directive 2010/75/EC.) :VOC (volatile carbon) : | 00 |

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| **SECTION 10. Stability and reactivity.** |
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| **10.1. Reactivity.** |
|  **Reactivity.** | There are no particular risks of reaction with other substances in normal conditions of use. |
| **10.2. Chemical stability.** |
| **Chemical stability.** | The product is stable in normal conditions of use and storage. |
| **10.3 Possibility of hazardous reactions.** |
| **Hazardous reactions.** | No hazardous reactions are foreseeable in normal conditions of use and storage. |
| **10.4 Conditions to avoid.** |
| **Conditions to avoid.** | None in particular. However the usual precautions used for chemical products should be respected. |
| **10.5 Incompatible materials.** |
| **Incompatibility** | No further relevant information available. |
| **10.6. Hazardous decomposition products.** |
| No further relevant information available. |
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| **SECTION 11. Toxicological information.** |
| **11.1. Information on toxicological effects.**In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness. |
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| LD/LC50 klasifikācijai svarīgie rādītāji |
| 64852-22-8 *Glyceryl poly(oxypropylene)triamine* |
| Oral | LD50 | 2690 mg/kg (RAT) |
| Dermal | LD50 | 12500 mg/kg (RABBIT) |

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**SECTION 12. Ecological information.**

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| No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.**12.1. Toxicity.** |
|  ***Glyceryl poly(oxypropylene)triamine*** | LC50 | 68 mg/l/96h (Fish) |

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| **12.2. Persistence and degradability.** |
| No further relevant information available. |
| **12.3. Bioaccumulative potential.** |
| No further relevant information available. |
| **12.4. Mobility in soil.** |  |
| No further relevant information available. |
| **12.5. Results of PBT and vPvB assessment.** |
| **PBT un vPvB** | On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%. |
| **12.6. Other adverse effects.** |
| Information not available. |
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**SECTION 13. Disposal considerations.**

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| **13.1. Waste treatment methods.** |
| **Product** | 08 00 00 : WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKSReuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations. |
| **CONTAMINATED PACKAGING**  | Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations. |

**SECTION 14. Transport information.**

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| **14.1 UN-Number**Not applicable.**14.2 UN proper shipping name**Not applicable.**14.3 Transport hazard class(es)**Not applicable.**14.4 Packing group**Not applicable.**14.5 Environmental hazards:**Not applicable.**14.6 Special precautions for user**Not applicable.**14.7 Transport in bulk according to Annex II of** **MARPOL73/78 and the IBC Code** Information not relevant.

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**Section 15. Regulatory information**

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| **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.****Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006. Product.**

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|  Point. | 3 |  |

**Healthcare controls.**Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out. |

**SECTION 16. Other information.**

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| **Text of risk (R) phrases mentioned in section 2-3 of the sheet:** | R38 Irritating to skinR41 Risk of serious damage to eyesR52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic enviroment |
| **Text of risk (H) phrases mentioned in section 2-3 of the sheet:** |  Eye Dam. 1 Serious eye damage, category 1 Eye Irrit. 2 Eye irritation, category 2 Skin Irrit. 2 Skin irritation, category 2 Aquatic Chronic 3 Hazardous to the aquatic environment, chronic toxicity, category 3 H318 Causes serious eye damage. H319 Causes serious eye irritation. H315 Causes skin irritation. H412 Harmful to aquatic life with long lasting effects. |
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**LEGEND:**

- ADR: European Agreement concerning the carriage of Dangerous goods by Road

- CAS NUMBER: Chemical Abstract Service Number

- CE50: Effective concentration (required to induce a 50% effect)

- CE NUMBER: Identifier in ESIS (European archive of existing substances)

- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level

- EmS: Emergency Schedule

- GHS: Globally Harmonized System of classification and labeling of chemicals

- IATA DGR: International Air Transport Association Dangerous Goods Regulation

- IC50: Immobilization Concentration 50%

- IMDG: International Maritime Code for dangerous goods

- IMO: International Maritime Organization

- INDEX NUMBER: Identifier in Annex VI of CLP

- LC50: Lethal Concentration 50%

- LD50: Lethal dose 50%

- OEL: Occupational Exposure Level

- PBT: Persistent bioaccumulative and toxic as REACH Regulation

- PEC: Predicted environmental Concentration

- PEL: Predicted exposure level

- PNEC: Predicted no effect concentration

- REACH: EC Regulation 1907/2006

- RID: Regulation concerning the international transport of dangerous goods by train

- TLV: Threshold Limit Value

- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.

- TWA STEL: Short-term exposure limit

- TWA: Time-weighted average exposure limit

- VOC: Volatile organic Compounds

- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation

- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments

2. Directive 67/548/EEC and following amendments and adjustments

3. Regulation (EU) 1907/2006 (REACH) of the European Parliament

4. Regulation (EU) 1272/2008 (CLP) of the European Parliament

5. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament

6. Regulation (EU) 453/2010 of the European Parliament

7. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament

8. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament

9. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament

10. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament

11. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition

- Handling Chemical Safety

- Niosh - Registry of Toxic Effects of Chemical Substances

- INRS - Fiche Toxicologique (toxicological sheet)

- Patty - Industrial Hygiene and Toxicology

- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition

- ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.