SAFETY DATA SHEET



GMK 2410 Contact Adhesive

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

1.1 Product identifier

Product name : GMK 2410 Contact Adhesive
UFI : FHQ0-S0M2-100U-4VNM

Product code : 161000 Colour : Tan.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Adhesives-Sealants

1.3 Details of the supplier of the safety data sheet

WEICON GmbH & Co. KG Königsberger Str. 255 48157 Münster Germany

Phone: +49 251 93220 Fax: +49(0)251 / 9322 - 244

Internet: www.weicon.de e-mail address of person

: msds@weicon.de

responsible for this SDS

1.4 Emergency telephone number

Telephone number : EMERGENCY CONTACT – UK, UAE, South Africa (24h): Tel: ++44 1865 407333

(English)

TRANSPORT EMERGENCY CONTACT - UK, UAE, South Africa (24h): Tel: ++44

1865 407333 (English)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to UK CLP/GHS

Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H336 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms







Signal word : Danger

Date of issue/Date of revision : 10/20/2022 Date of previous issue : 10/19/2022 Version : 1.01 1/18

SECTION 2: Hazards identification

Hazard statements : Highly flammable liquid and vapour.

Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness.

Very toxic to aquatic life with long lasting effects.

Precautionary statements

General : Read carefully and follow all instructions. Keep out of reach of children. If medical

advice is needed, have product container or label at hand.

Prevention : Wear protective gloves. Wear eve or face protection. Keep away from heat, hot

surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid

breathing vapour. Wash thoroughly after handling.

Collect spillage. IF INHALED: Call a POISON CENTER or doctor if you feel unwell. Response

Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or

attention.

Storage Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal : Dispose of waste according to applicable legislation.

Supplemental label

elements

: Contains rosin. May produce an allergic reaction.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and

articles

: Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

: This mixture does not contain any substances that are assessed to be a PBT or a

vPvR

Other hazards which do

not result in classification

SECTION 3: Composition/information on ingredients

: Mixture 3.2 Mixtures

| Product/ingredient name | Identifiers | % | Classification | Туре |
|-------------------------|---|-----------|---|---------|
| cyclohexane | REACH #: 01-2119463273-41 EC: 203-806-2 CAS: 110-82-7 Index: 601-017-00-1 | ≥25 - ≤50 | Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) | [1] [2] |
| ethyl acetate | REACH #: 01-2119475103-46 EC: 205-500-4 CAS: 141-78-6 Index: 607-022-00-5 | ≥25 - ≤50 | Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066 | [1] [2] |
| magnesium oxide | REACH #: Annex V EC: 215-171-9 CAS: 1309-48-4 | ≤3 | Not classified. | [2] |
| rosin | REACH #: 01-2119480418-32 EC: 232-475-7 | <1 | Skin Sens. 1, H317 Aquatic Chronic 4, H413 | [1] [2] |

Date of issue/Date of revision 2/18 : 10/20/2022 : 10/19/2022 Version : 1.01 Date of previous issue

SECTION 3: Composition/information on ingredients

| zinc oxide | CAS: 8050-09-7 Index: 650-015-00-7 REACH #: 01-2119463881-32 EC: 215-222-5 | ≤1 | Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, | [1] |
|----------------------------|--|------|--|---------|
| xylene | CAS: 1314-13-2 Index: 030-013-00-7 REACH #: 01-2119488216-32 EC: 215-535-7 | <1 | H410 (M=10) Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 | [1] [2] |
| 2,6-di-tert-butyl-p-cresol | CAS: 1330-20-7 Index: 601-022-00-9 REACH #: 01-2119555270-46 EC: 204-881-4 | ≤0.3 | Skin Irrit. 2, H315 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, | [1] [2] |
| | CAS: 128-37-0 | | H410 (M=1) See Section 16 for the full text of the H statements declared above. | |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact

: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders

: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Date of issue/Date of revision : 10/20/2022 Date of previous issue : 10/19/2022 Version : 1.01 3/18

SECTION 4: First aid measures

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation : Adverse symptoms may include the following:

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness

Skin contact: Adverse symptoms may include the following:

irritation redness

Ingestion: No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing

media

: Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing

media

: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture

: Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products

: Decomposition products may include the following materials:

carbon dioxide carbon monoxide metal oxide/oxides

mode.

5.3 Advice for firefighters

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk.

Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure

Date of issue/Date of revision : 10/20/2022 Date of previous issue : 10/19/2022 Version : 1.01 4/18

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections

: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance.

7.1 Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Date of issue/Date of revision : 10/20/2022 : 10/19/2022 Version : 1.01 5/18 Date of previous issue

GMK 2410 Contact Adhesive

SECTION 7: Handling and storage

| Category | Notification and MAPF threshold | Safety report threshold |
|---------------|---------------------------------|-------------------------|
| P5c | 5000 tonne | 50000 tonne |
| E1 | 100 tonne | 200 tonne |

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific : Not available.

solutions

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

| Product/ingredient name | Exposure limit values |
|----------------------------|---|
| cyclohexane | EH40/2005 WELs (United Kingdom (UK), 1/2020). |
| | STEL: 1050 mg/m³ 15 minutes. |
| | STEL: 300 ppm 15 minutes. |
| | TWA: 100 ppm 8 hours. |
| | TWA: 350 mg/m³ 8 hours. |
| ethyl acetate | EH40/2005 WELs (United Kingdom (UK), 1/2020). |
| | STEL: 400 ppm 15 minutes. |
| | TWA: 200 ppm 8 hours. |
| | STEL: 1468 mg/m³ 15 minutes. |
| | TWA: 734 mg/m³ 8 hours. |
| magnesium oxide | EH40/2005 WELs (United Kingdom (UK), 1/2020). |
| | TWA: 4 mg/m³, (as Mg) 8 hours. Form: respirable dust |
| | TWA: 10 mg/m³, (as Mg) 8 hours. Form: inhalable dust fume |
| rosin | EH40/2005 WELs (United Kingdom (UK), 1/2020). Inhalation |
| | sensitiser. |
| | STEL: 0.15 mg/m³ 15 minutes. Form: Fume |
| | TWA: 0.05 mg/m³ 8 hours. Form: Fume |
| xylene | EH40/2005 WELs (United Kingdom (UK), 1/2020). [xylene, o-,m-, |
| | p- or mixed isomers] Absorbed through skin. |
| | STEL: 441 mg/m³ 15 minutes. |
| | TWA: 50 ppm 8 hours. TWA: 220 mg/m³ 8 hours. |
| | STEL: 100 ppm 15 minutes. |
| 2.6 di tort butyl p crosol | EH40/2005 WELs (United Kingdom (UK), 1/2020). |
| 2,6-di-tert-butyl-p-cresol | TWA: 10 mg/m ³ 8 hours. |
| | TVVA. 10 mg/m o nours. |

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

| Product/ingredient name | Туре | Exposure | Value | Population | Effects |
|-------------------------|------|--------------------------|-----------------------|--------------------|----------|
| cyclohexane | DNEL | Long term Oral | 59.4 mg/ kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 206 mg/m ³ | General population | Local |
| | DNEL | Long term Inhalation | 206 mg/m ³ | General population | Systemic |
| | DNEL | Short term Inhalation | 412 mg/m³ | General population | Local |
| | DNEL | Short term | 412 mg/m ³ | General | Systemic |

Date of issue/Date of revision : 10/20/2022 Date of previous issue : 10/19/2022 Version : 1.01 6/18

SECTION 8: Exposure controls/personal protection

| | <u> </u> | • | <u>•</u> | | | |
|-----|-------------------------------------|--------|--------------------------|------------------------------------|-----------------------|-------------------|
| | | 5 | Inhalation | 700 / 3 | population | |
| | | DNEL | Short term | 700 mg/m ³ | Workers | Local |
| | | DNEL | Inhalation Long term | 700 mg/m³ | Workers | Local |
| | | DIVLL | Inhalation | 700 mg/m | WORKEIS | Local |
| | | DNEL | Short term | 700 mg/m ³ | Workers | Systemic |
| | | | Inhalation | G | | |
| | | DNEL | Long term | 700 mg/m ³ | Workers | Systemic |
| | | 5 | Inhalation | 4400 / | | |
| | | DNEL | Long term Dermal | 1186 mg/ | General | Systemic |
| | | DNEL | Long term Dermal | kg bw/day 2016 mg/ kg bw/day | population Workers | Systemic |
| | ethyl acetate | DNEL | Long term Oral | 4.5 mg/kg | General | Systemic |
| | • | | | bw/day | population | |
| | | DNEL | Long term Dermal | 37 mg/kg | General | Systemic |
| | | DAIEI | | bw/day | population | |
| | | DNEL | Long term Dermal | 63 mg/kg bw/day | Workers | Systemic |
| | | DNEL | Long term | 367 mg/m ³ | General | Local |
| | | DNEL | Inhalation | 267 m a/m³ | population | Cyntomia |
| | | DNEL | Long term Inhalation | 367 mg/m ³ | General population | Systemic |
| | | DNEL | Short term | 734 mg/m³ | General | Local |
| | | D.122 | Inhalation | | population | 20041 |
| | | DNEL | Short term | 734 mg/m ³ | General | Systemic |
| | | | Inhalation | J | population | |
| | | DNEL | Long term Inhalation | 734 mg/m ³ | Workers | Local |
| | | DNEL | Long term Inhalation | 734 mg/m³ | Workers | Systemic |
| | | DNEL | Short term Inhalation | 1468 mg/ m³ | Workers | Local |
| | | DNEL | Short term Inhalation | 1468 mg/ m³ | Workers | Systemic |
| | rosin | DNEL | Long term Inhalation | 35 mg/m ³ | General population | Systemic |
| | | DNEL | Long term Inhalation | 117 mg/m³ | Workers | Systemic |
| | | DNEL | Long term Oral | 1.0655 mg/ kg bw/day | General population | Systemic |
| | | DNEL | Long term Dermal | 1.0655 mg/ kg bw/day | General population | Systemic |
| | | DNEL | Long term Dermal | 2.131 mg/ kg bw/day | Workers | Systemic |
| | | DNEL | Long term | 10 mg/m ³ | Workers | Local |
| | | | Inhalation | J | | |
| | zinc oxide | DNEL | Long term Inhalation | 0.5 mg/m ³ | Workers | Local |
| | | DNEL | Long term Oral | 0.83 mg/ kg bw/day | General population | Systemic |
| | | DNEL | Long term Inhalation | 2.5 mg/m ³ | General population | Systemic |
| | | DNEL | Long term Inhalation | 5 mg/m³ | Workers | Systemic |
| | | DNEL | Long term Dermal | 83 mg/kg bw/day | General population | Systemic |
| | | DNEL | Long term Dermal | 83 mg/kg bw/day | Workers | Systemic |
| | xylene | DNEL | Long term Oral | 1.6 mg/kg bw/day | General population | Systemic |
| | | DNEL | Long term | 14.8 mg/m ³ | | Systemic |
| | | | Inhalation | | population | |
| Da: | te of issue/Date of revision : 10/2 | 7/2022 | Date of previous issue | • 10/19/2 | 000 | rsion · 1 01 7/18 |

Date of issue/Date of revision : 10/20/2022 Date of previous issue : 10/19/2022 Version : 1.01 7/18

SECTION 8: Exposure controls/personal protection

| | DNEL | Long term | 77 mg/m³ | Workers | Systemic |
|----------------------------|-----------|---------------------------------------|-----------------------|-----------------------|------------|
| | | Inhalation | | | _ |
| | DNEL | Long term Dermal | 108 mg/kg | General | Systemic |
| | | | bw/day | population | |
| | DNEL | Long term Dermal | 180 mg/kg bw/day | Workers | Systemic |
| | DNEL | Short term Inhalation | 289 mg/m ³ | Workers | Local |
| | DNEL | Short term | 289 mg/m³ | Workers | Systemic |
| | - · · - · | Inhalation | 050 / 3 | | |
| | DNEL | Long term Inhalation | 65.3 mg/m³ | General population | Local |
| | DNEL | Short term Inhalation | 260 mg/m ³ | General population | Local |
| | DNEL | Short term | 260 mg/m ³ | General | Systemic |
| | D. 122 | Inhalation | 200 mg/m | population | C you mile |
| | DNEL | Long term Inhalation | 221 mg/m³ | Workers | Local |
| 2,6-di-tert-butyl-p-cresol | DNEL | Long term Dermal | 0.25 mg/ kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 0.5 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Oral | 0.25 mg/ kg bw/day | General population | Systemic |
| | DNEL | Long term | 0.435 mg/ | General | Systemic |
| | DNEL | Inhalation Long term Inhalation | m³ 1.76 mg/m³ | population Workers | Systemic |

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. Recommended: 1 - 4 hours (breakthrough time): nitrile rubber; 4 - 8 hours (breakthrough time): Viton®/butyl rubber

Date of issue/Date of revision : 10/20/2022 Date of previous issue : 10/19/2022 Version : 1.01 8/18

SECTION 8: Exposure controls/personal protection

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: organic vapour (Type AX) and particulate filter

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid. Colour : Tan. Odour : Fruity.

Odour threshold : Not available. Melting point/freezing point : Not available.

Initial boiling point and

boiling range

: 72 to 77°C (161.6 to 170.6°F)

Flammability : Not available. Upper/lower flammability or : Lower: 1%

explosive limits

Flash point

: Closed cup: -11°C (12.2°F)

Upper: 12.8%

Auto-ignition temperature

| Ingredient name | °C | °F | Method |
|-----------------|--------|-------|--------|
| cyclohexane | 260 | 500 | |
| ethyl acetate | 426.67 | 800 | |
| xylene | 432 | 809.6 | |

Decomposition temperature : Not available. Hq : Not applicable.

Viscosity Dynamic: 230000 mPa·s

Kinematic: >20.5 mm²/s

Solubility(ies)

Not available.

Solubility in water : Not available.

Miscible with water

Partition coefficient: n-octanol/ : Not applicable.

water

: 10.4 kPa (78.006 mm Hg) Vapour pressure

Relative density : Not available.

Density : 0.94 g/cm³ [20°C (68°F)]

Vapour density Not available.

Date of issue/Date of revision : 10/20/2022 : 10/19/2022 Version : 1.01 9/18 Date of previous issue

GMK 2410 Contact Adhesive

SECTION 9: Physical and chemical properties

Explosive properties : Not available.

Oxidising properties : Not available.

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

SAPT : Not available.
SAPT : Not available.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld,

braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5 Incompatible materials: Reactive or incompatible with the following materials:

oxidising materials

10.6 Hazardous decomposition products

: Under normal conditions of storage and use, hazardous decomposition products

should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|-------------|---------|-------------|----------|
| - | LD50 Oral | Rat | 6240 mg/kg | - |
| - | LD50 Oral | Rat | 5620 mg/kg | - |
| - | LD50 Oral | Rat | 7600 mg/kg | - |
| - | LD50 Oral | Mouse | 2119 mg/kg | - |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| | LDLo Oral | Human | 50 mg/kg | - |
| | LDLo Oral | Human | 50 mg/kg | - |
| | TDLo Dermal | Mouse | 727.3 uL/kg | - |
| | TDLo Dermal | Rabbit | 4300 mg/kg | - |
| - | LD50 Oral | Rat | 890 mg/kg | - |

Conclusion/Summary

: Not available.

Acute toxicity estimates

Date of issue/Date of revision : 10/20/2022 Date of previous issue : 10/19/2022 Version : 1.01 10/18

GMK 2410 Contact Adhesive

SECTION 11: Toxicological information

| | ATE value |
|----------------|-----------|
| Not available. | |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|--------------------------|---------|-------|--------------------|-------------|
| - | Skin - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| - | Eyes - Mild irritant | Rabbit | - | 87 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 mg | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 uL | - |
| | Skin - Moderate irritant | Rabbit | - | 100 % | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| - | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 mg | - |
| | Skin - Mild irritant | Human | - | 48 hours 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 48 hours 500 mg | - |

Conclusion/Summary

: Not available.

Sensitisation

Conclusion/Summary

: Not available.

Mutagenicity

Conclusion/Summary

: Not available.

Carcinogenicity

Conclusion/Summary

: Not available.

Reproductive toxicity

Conclusion/Summary

: Not available.

Teratogenicity

ethyl acetate

Conclusion/Summary: Not available.

Specific target organ toxicity (single exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|------------|-------------------|------------------|
| cyclohexane | Category 3 | - | Narcotic effects |

Category 3

Narcotic effects

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|----------|-------------------|---------------|
| Not available. | | | |

Aspiration hazard

| Product/ingredient name | Result |
|-------------------------|--------------------------------|
| cyclohexane | ASPIRATION HAZARD - Category 1 |

Date of issue/Date of revision : 10/20/2022 Date of previous issue : 10/19/2022 Version : 1.01 11/18

SECTION 11: Toxicological information

Information on likely routes : Not available.

of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or

dizziness.

Skin contact: Causes skin irritation.

Ingestion: Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following:

pain or irritation

watering redness

Inhalation: Adverse symptoms may include the following:

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness

Skin contact: Adverse symptoms may include the following:

irritation redness

Ingestion: No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Long term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary: Not available.

General : No known significant effects or critical hazards.
 Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Teratogenicity : No known significant effects or critical hazards.
 Developmental effects : No known significant effects or critical hazards.
 Fertility effects : No known significant effects or critical hazards.

Other information : Not available.

Date of issue/Date of revision : 10/20/2022 Date of previous issue : 10/19/2022 Version : 1.01 12/18

SECTION 12: Ecological information

12.1 Toxicity

| Product/ingredient name | Result | Species | Exposure |
|--|-------------------------------------|---------|----------|
| Fish - Pimephales promelas | Acute LC50 4530 µg/l Fresh water | - | 96 hours |
| Algae - Selenastrum sp. | Acute EC50 2500000 μg/l Fresh water | - | 96 hours |
| Crustaceans - Gammarus pulex | Acute LC50 750000 μg/l Fresh water | | 48 hours |
| Daphnia - Daphnia cucullata | Acute LC50 154000 μg/l Fresh water | | 48 hours |
| Fish - Heteropneustes fossilis | Acute LC50 212500 μg/l Fresh water | | 96 hours |
| Daphnia - Daphnia magna | Chronic NOEC 2400 µg/l Fresh water | | 21 days |
| Fish - Pimephales promelas - Embryo | Chronic NOEC 75.6 mg/l Fresh water | | 32 days |
| Algae - Skeletonema costatum | Acute IC50 1.85 mg/l Marine water | - | 96 hours |
| Daphnia - Daphnia magna - Neonate | Acute LC50 98 μg/l Fresh water | | 48 hours |
| Fish - Oncorhynchus mykiss | Acute LC50 1.1 ppm Fresh water | | 96 hours |
| Crustaceans - Cypris subglobosa | Acute EC50 90 mg/l Fresh water | - | 48 hours |
| Crustaceans - Palaemonetes pugio - Adult | Acute LC50 8.5 ppm Marine water | | 48 hours |
| Crustaceans - Palaemonetes pugio | Acute LC50 8500 μg/l Marine water | | 48 hours |
| Fish - Carassius auratus | Acute LC50 16940 μg/l Fresh water | | 96 hours |
| Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) | Acute LC50 15700 μg/l Fresh water | | 96 hours |
| Fish - Lepomis macrochirus | Acute LC50 20870 μg/l Fresh water | | 96 hours |
| Fish - Lepomis macrochirus | Acute LC50 19000 μg/l Fresh water | | 96 hours |
| Fish - Pimephales promelas | Acute LC50 13400 μg/l Fresh water | | 96 hours |
| Daphnia - Daphnia pulex - Neonate | Acute EC50 1440 μg/l Fresh water | - | 48 hours |

Conclusion/Summary: Not available.

12.2 Persistence and degradability

Conclusion/Summary: Not available.

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| Not available. | | | |

Date of issue/Date of revision : 10/20/2022 Date of previous issue : 10/19/2022 Version : 1.01 13/18

SECTION 12: Ecological information

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc})

: Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal

: The generation of waste should be avoided or minimised wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste

Packaging

Methods of disposal

- : The classification of the product may meet the criteria for a hazardous waste.
- : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions

: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

| | ADR/RID | IMDG | IATA |
|------------------------------------|-----------|---------------------|--|
| 14.1 UN number | UN1133 | UN1133 | UN1133 |
| 14.2 UN proper shipping name | ADHESIVES | ADHESIVES | Adhesives |
| 14.3 Transport hazard class(es) | 3 | 3 | 3 |
| 14.4 Packing group | II | II | II |
| 14.5 Environmental hazards | Yes. | Yes. cyclohexane | Yes. The environmentally hazardous substance mark is not required. |

Date of issue/Date of revision : 10/20/2022 Date of previous issue : 10/19/2022 Version : 1.01 14/18

GMK 2410 Contact Adhesive

SECTION 14: Transport information

Additional information

ADR/RID : The environmentally hazardous substance mark is not required when transported in

sizes of ≤5 L or ≤5 kg.

Hazard identification number 33

<u>Limited quantity</u> 5 L <u>Special provisions</u> 640D <u>Tunnel code</u> (D/E)

ADR Classification Code: F1

IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

Emergency schedules F-E, S-D

IATA : The environmentally hazardous substance mark may appear if required by other

transportation regulations.

Quantity limitation Passenger and Cargo Aircraft: 5 L. Packaging instructions: 353.

Cargo Aircraft Only: 60 L. Packaging instructions: 364. Limited Quantities -

Passenger Aircraft: 1 L. Packaging instructions: Y341.

Special provisions A3

14.6 Special precautions for

user

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in

the event of an accident or spillage.

14.7 Transport in bulk

according to IMO instruments

: Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture UK (GB) /REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions : Not applicable. **on the manufacture,**

placing on the market and use of certain dangerous substances, mixtures and articles

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Date of issue/Date of revision : 10/20/2022 Date of previous issue : 10/19/2022 Version : 1.01 15/18

GMK 2410 Contact Adhesive

SECTION 15: Regulatory information

Category

P5c E1

EU regulations

Industrial emissions : Not listed

(integrated pollution prevention and control) -

Air

Industrial emissions : Not listed

(integrated pollution prevention and control) -

Water

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Eurasian Economic Union : Russian Federation inventory: All components are listed or exempted.

Japan : Japan inventory (CSCL): All components are listed or exempted.

Japan inventory (ISHL): Not determined.

New Zealand : All components are listed or exempted.
Philippines : All components are listed or exempted.
Republic of Korea : All components are listed or exempted.
Taiwan : All components are listed or exempted.

Thailand: Not determined.

Turkey : All components are listed or exempted.
United States : All components are active or exempted.
Viet Nam : All components are listed or exempted.

15.2 Chemical safety : This product contains substances for which Chemical Safety Assessments are still

assessment required

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Date of issue/Date of revision : 10/20/2022 Date of previous issue : 10/19/2022 Version : 1.01 16/18

SECTION 16: Other information

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No.

1272/2008]

DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

N/A = Not available

PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

SGG = Segregation Group

vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification | Justification |
|-------------------------|-----------------------|
| Flam. Liq. 2, H225 | On basis of test data |
| Skin Irrit. 2, H315 | Calculation method |
| Eye Irrit. 2, H319 | Calculation method |
| STOT SE 3, H336 | Calculation method |
| Aquatic Acute 1, H400 | Calculation method |
| Aquatic Chronic 1, H410 | Calculation method |

Full text of abbreviated H statements

| H225 | Highly flammable liquid and vapour. |
|--------|---|
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H336 | May cause drowsiness or dizziness. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H413 | May cause long lasting harmful effects to aquatic life. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

Full text of classifications [CLP/GHS]

| Acute Tox. 4 | ACUTE TOXICITY - Category 4 |
|-------------------|--|
| Aquatic Acute 1 | SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 |
| Aquatic Chronic 1 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 |
| Aquatic Chronic 4 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4 |
| Asp. Tox. 1 | ASPIRATION HAZARD - Category 1 |
| Eye Irrit. 2 | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 |
| Flam. Liq. 2 | FLAMMABLE LIQUIDS - Category 2 |
| Flam. Liq. 3 | FLAMMABLE LIQUIDS - Category 3 |
| Skin Irrit. 2 | SKIN CORROSION/IRRITATION - Category 2 |
| Skin Sens. 1 | SKIN SENSITISATION - Category 1 |
| STOT SE 3 | SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - |
| | Category 3 |

Date of printing
Date of issue/ Date of

revision

Version

: 12/23/2022: 10/20/2022

: 1.01

Date of previous issue : 10/19/2022

Notice to reader

Date of issue/Date of revision : 10/20/2022 Date of previous issue : 10/19/2022 Version : 1.01 17/18

GMK 2410 Contact Adhesive

SECTION 16: Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Date of issue/Date of revision : 10/20/2022 Date of previous issue : 10/19/2022 Version : 1.01 18/18