# Safety Data Sheet

according to UK REACH Regulation

## RASCOflex GT781 B-Comp



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

**1.1. Product identifier**

RASCOflex GT781 B-Comp

UFI: WGAQ-4JR2-G91V-Q8EY

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

**1.3. Details of the supplier of the safety data sheet**

| | | |
|---|---|---|
| Company name: | RASCOR International Ltd. | |
| Street: | Gewerbestrasse 4 | |
| Place: | CH-8162 Steinmaur | |
| Telephone: | +41 (0)448571111 | |
| E-mail: | info@rascor.com | |
| Contact person: | Labor | Telephone: +41 (0)44 857 11 11 |
| E-mail: | labor@rascor.com | |
| Internet: | www.rascor.com | |

**1.4. Emergency telephone number:** +41 44 251 51 51

## SECTION 2: Hazards identification

**2.1. Classification of the substance or mixture**

**Regulation (EC) No 1272/2008**

Carc. 2; H351
Acute Tox. 4; H332
Skin Irrit. 2; H315
Eye Irrit. 2; H319
Resp. Sens. 1; H334
Skin Sens. 1; H317
STOT SE 3; H335
STOT RE 2; H373

Full text of hazard statements: see SECTION 16.

**2.2. Label elements**

**Regulation (EC) No 1272/2008**

**Hazard components for labelling**

4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate
Methylendiphenylisocyanate
methylenediphenyl diisocyanate

**Signal word:** Danger

**Pictograms:**

**Hazard statements**

| | |
|---|---|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |

| | |
|---|---|
| H335 | May cause respiratory irritation. |
| H351 | Suspected of causing cancer. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |

**Precautionary statements**

| | |
|---|---|
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. |
| P284 | Wear respiratory protection. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P342+P311 | If experiencing respiratory symptoms: Call a POISON CENTER/doctor. |
| 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. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |

**Special labelling**

| | |
|---|---|
| EUH204 | Contains isocyanates. May produce an allergic reaction. |

### 2.3. Other hazards

Endocrine disrupting properties: Methylendiphenylisocyanate.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

**Hazardous components**

| CAS No | Chemical name | | | Quantity |
|---|---|---|---|---|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 9016-87-9 | Methylendiphenylisocyanate | | | 60 - < 65 % |
| | 618-498-9 | | | |
| | Carc. 2; H351 | | | |
| 101-68-8 | 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate | | | 30 - < 35 % |
| | 202-966-0 | 615-005-00-9 | | |
| | Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373 | | | |
| 26447-40-5 | methylenediphenyl diisocyanate | | | 5 - < 10 % |
| | 247-714-0 | 615-005-00-9 | | |
| | Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373 | | | |

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

| CAS No | EC No | Chemical name | Quantity |
|---|---|---|---|
| | Specific Conc. Limits, M-factors and ATE | | |
| 9016-87-9 | 618-498-9 | Methylendiphenylisocyanate | 60 - < 65 % |
| | dermal: LD50 = 9400 mg/kg; oral: LD50 = 10000 mg/kg | | |
| 101-68-8 | 202-966-0 | 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate | 30 - < 35 % |
| | inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1.5 mg/l (dusts or mists); oral: LD50 = 9200 mg/kg Skin Irrit. 2; H315: >= 5 - 100 Eye Irrit. 2; H319: >= 5 - 100 Resp. Sens. 1; H334: >= 0.1 - 100 STOT SE 3; H335: >= 5 - 100 | | |
| 26447-40-5 | 247-714-0 | methylenediphenyl diisocyanate | 5 - < 10 % |
| | inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1.5 mg/l (dusts or mists) Skin Irrit. 2; H315: >= 5 - 100 Eye Irrit. 2; H319: >= 5 - 100 Resp. Sens. 1; H334: >= 0.1 - 100 STOT SE 3; H335: >= 5 - 100 | | |

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**After inhalation**

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

**After contact with eyes**

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

**After ingestion**

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

No information available.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

### 5.2. Special hazards arising from the substance or mixture

Non-flammable.

### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

**Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**General advice**

Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

### 6.3. Methods and material for containment and cleaning up

**For cleaning up**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

### 6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary . When using do not eat, drink, smoke, sniff.

### 7.2. Conditions for safe storage, including any incompatibilities

**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

**Hints on joint storage**

No special measures are necessary.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**Exposure limits (EH40)**

| CAS No | Substance | ppm | mg/m³ | fibres/ml | Category | Origin |
|---|---|---|---|---|---|---|
| - | Isocyanates, all (as -NCO) Except methyl isocyanate | - | 0.02 | | TWA (8 h) | WEL |
| | | - | 0.07 | | STEL (15 min) | WEL |

**Biological Monitoring Guidance Values (EH40)**

| CAS No | Substance | Parameter | Value | Test material | Sampling time |
|---|---|---|---|---|---|
| - | Isocyanates (applies to HDI, IPDI, TDI and MDI) | isocyanate-derived diamine (creatinine) | 1 µmol/mol | urine | At the end of the period of exposure |

### 8.2. Exposure controls

**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Suitable eye protection: goggles.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Use of protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state: | Liquid |
| Colour: | |
| Melting point/freezing point: | not determined |
| Boiling point or initial boiling point and boiling range: | not determined |
| Flammability: | not determined |
| Lower explosion limits: | not determined |
| Upper explosion limits: | not determined |
| Flash point: | not determined |
| Auto-ignition temperature: | not determined |
| Decomposition temperature: | not determined |
| pH-Value: | not determined |
| Viscosity / kinematic: | not determined |
| Water solubility: | The study does not need to be conducted because the substance is known to be insoluble in water. |

Solubility in other solvents

not determined

| | |
|---|---|
| Partition coefficient n-octanol/water: | not determined |
| Vapour pressure: | not determined |
| Density: | 1.21 g/cm³ |
| Relative vapour density: | not determined |
| Particle characteristics: | not applicable |

### 9.2. Other information

**Information with regard to physical hazard classes**

Explosive properties

The product is not: Explosive.

Oxidizing properties

The product is not: oxidising.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

No known hazardous reactions.

### 10.4. Conditions to avoid

none

### 10.5. Incompatible materials

No information available.

### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes

**Acute toxicity**

Harmful if inhaled.

**ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) 19.30 mg/l; ATE (inhalation dust/mist) 2.632 mg/l

| CAS No | Chemical name | | | | | |
|---|---|---|---|---|---|---|
| | Exposure route | Dose | | Species | Source | Method |
| 9016-87-9 | Methylendiphenylisocyanate | | | | | |
| | oral | LD50 mg/kg | 10000 | Rat | | |
| | dermal | LD50 mg/kg | 9400 | Rabbit | | |
| 101-68-8 | 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate | | | | | |
| | oral | LD50 mg/kg | 9200 | Rat | GESTIS | |
| | inhalation vapour | ATE | 11 mg/l | | | |
| | inhalation dust/mist | ATE | 1.5 mg/l | | | |
| 26447-40-5 | methylenediphenyl diisocyanate | | | | | |
| | inhalation vapour | ATE | 11 mg/l | | | |
| | inhalation dust/mist | ATE | 1.5 mg/l | | | |

**Irritation and corrosivity**

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye irritation.

**Sensitising effects**

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate; methylenediphenyl diisocyanate)
May cause an allergic skin reaction. (4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate; methylenediphenyl diisocyanate)
Contains isocyanates. May produce an allergic reaction.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Suspected of causing cancer. (Methylendiphenylisocyanate; 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate; methylenediphenyl diisocyanate)
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

**STOT-single exposure**

May cause respiratory irritation. (4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate; methylenediphenyl diisocyanate)

**STOT-repeated exposure**

May cause damage to organs through prolonged or repeated exposure. (4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate)

**Aspiration hazard**

Based on available data, the classification criteria are not met.

### 11.2. Information on other hazards

**Endocrine disrupting properties**

Endocrine disrupting properties: Methylendiphenylisocyanate.

**Other information**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

## SECTION 12: Ecological information

### 12.1. Toxicity

Based on available data, the classification criteria are not met.
The product is not: Ecotoxic.

| CAS No | Chemical name | | | | | | |
|---|---|---|---|---|---|---|---|
| | Aquatic toxicity | Dose | | [h] \| [d] | Species | Source | Method |
| 9016-87-9 | Methylendiphenylisocyanate | | | | | | |
| | Acute fish toxicity | LC50 mg/l | >1000 | 96 h | Cyprinus carpio (Common Carp) | | |
| | Acute algae toxicity | ErC50 mg/l | 1640 | 72 h | Scenedesmus quadricauda | | |
| | Acute crustacea toxicity | EC50 mg/l | >500 | 48 h | Daphnia magna (Big water flea) | | |

### 12.2. Persistence and degradability

The product has not been tested.

### 12.3. Bioaccumulative potential

The product has not been tested.

### 12.4. Mobility in soil

The product has not been tested.

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.
The product has not been tested.

### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

No information available.

**Further information**

Avoid release to the environment.

## SECTION 13: Disposal considerations

**13.1. Waste treatment methods**

**Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

**List of Wastes Code - residues/unused products**

080501 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes not otherwise specified in 08; waste isocyanates; hazardous waste

**List of Wastes Code - used product**

080501 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes not otherwise specified in 08; waste isocyanates; hazardous waste

**List of Wastes Code - contaminated packaging**

080501 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes not otherwise specified in 08; waste isocyanates; hazardous waste

**Contaminated packaging**

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Handle contaminated packages in the same way as the substance itself.

## SECTION 14: Transport information

**Land transport (ADR/RID)**

| | |
|---|---|
| **14.1. UN number or ID number:** | No dangerous good in sense of this transport regulation. |
| **14.2. UN proper shipping name:** | No dangerous good in sense of this transport regulation. |
| **14.3. Transport hazard class(es):** | No dangerous good in sense of this transport regulation. |
| **14.4. Packing group:** | No dangerous good in sense of this transport regulation. |

**Inland waterways transport (ADN)**

| | |
|---|---|
| **14.1. UN number or ID number:** | No dangerous good in sense of this transport regulation. |
| **14.2. UN proper shipping name:** | No dangerous good in sense of this transport regulation. |
| **14.3. Transport hazard class(es):** | No dangerous good in sense of this transport regulation. |
| **14.4. Packing group:** | No dangerous good in sense of this transport regulation. |

**Marine transport (IMDG)**

| | |
|---|---|
| **14.1. UN number or ID number:** | No dangerous good in sense of this transport regulation. |
| **14.2. UN proper shipping name:** | No dangerous good in sense of this transport regulation. |
| **14.3. Transport hazard class(es):** | No dangerous good in sense of this transport regulation. |
| **14.4. Packing group:** | No dangerous good in sense of this transport regulation. |

**Air transport (ICAO-TI/IATA-DGR)**

| | |
|---|---|
| **14.1. UN number or ID number:** | No dangerous good in sense of this transport regulation. |
| **14.2. UN proper shipping name:** | No dangerous good in sense of this transport regulation. |
| **14.3. Transport hazard class(es):** | No dangerous good in sense of this transport regulation. |
| **14.4. Packing group:** | No dangerous good in sense of this transport regulation. |

**14.6. Special precautions for user**

No dangerous good in sense of this transport regulation.

**14.7. Maritime transport in bulk according to IMO instruments**

No dangerous good in sense of this transport regulation.

## SECTION 15: Regulatory information

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 56, Entry 75

| | |
|---|---|
| Directive 2010/75/EU on industrial emissions: | 0% |
| Directive 2004/42/EC on VOC in paints and varnishes: | 0% |
| Information according to Directive 2012/18/EU (SEVESO III): | Not subject to 2012/18/EU (SEVESO III) |

**National regulatory information**

| | |
|---|---|
| Employment restrictions: | Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). |
| Water hazard class (D): | 1 - slightly hazardous to water |
| Skin resorption/Sensitization: | Causes allergic hypersensitivity reactions. |

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

**Changes**

This data sheet contains changes from the previous version in section(s): 13.

**Abbreviations and acronyms**

CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road )
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
IMDG: International Maritime Code for Dangerous Goods
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
SVHC: Substance of Very High Concern
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).
Acute Tox. 4: Acute toxicity, hazard category 4
Skin Irrit. 2: Skin irritation, hazard category 2
Eye Irrit. 2: Eye irritation, hazard category 2
Resp. Sens. 1: Respiratory sensitisation, hazard category 1
Skin Sens. 1: Skin sensitisation, hazard category 1
Carc. 2: Carcinogenicity, hazard category 2
STOT SE 3: Specific target organ toxicity - single exposure, hazard category 3
STOT RE 2: Specific target organ toxicity - repeated exposure, hazard category 2

**Classification for mixtures and used evaluation method**

| Classification | Classification procedure |
|---|---|
| Carc. 2; H351 | Calculation method |
| Acute Tox. 4; H332 | Calculation method |
| Skin Irrit. 2; H315 | Calculation method |
| Eye Irrit. 2; H319 | Calculation method |
| Resp. Sens. 1; H334 | Calculation method |
| Skin Sens. 1; H317 | Calculation method |
| STOT SE 3; H335 | Calculation method |
| STOT RE 2; H373 | Calculation method |

**Relevant H and EUH statements (number and full text)**

| | |
|---|---|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H351 | Suspected of causing cancer. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| EUH204 | Contains isocyanates. May produce an allergic reaction. |

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*