



Safety Data Sheet according to (EC) No 1907/2006

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QMI519, 10cc EFD-O w/WP/Snap Ca

sds no. : 213503
V002.1

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

Product identifier:

QMI519, 10cc EFD-O w/WP/Snap Ca

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

Intended use:

Die attach adhesive

Details of the supplier of the safety data sheet:

Henkel Limited
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Great Britain

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SECTION 2: Hazards identification

Classification of the substance or mixture:

Classification (DPD):

The product is not subject to classification according to the calculation methods of the "General Classification Guideline for Preparations of the EC" as issued in the last version.

Label elements (DPD):

Not subject of the identification regulations.

Additional labeling:

Safety data sheet available for professional user on request.

Other hazards:

None if used properly.

SECTION 3: Composition/information on ingredients

General chemical description:

Conductive adhesive

Base substances of preparation:

Bismaleimide resin

Methacrylates

Filler

Declaration of the ingredients according to CLP (EC) No 1272/2008:

| Hazardous components CAS-No. | EC Number REACH-Reg No. | content | Classification |
|--|----------------------------|-----------|--|
| Silver 7440-22-4 | 231-131-3 | 80- 100 % | |
| Dicyclopentenylxyethyl Methacrylate. 68586-19-6 | 271-608-3 | 1- 5 % | Skin irritation 2; Dermal H315 Serious eye irritation 2 H319 Acute toxicity 4; Inhalation H332 Specific target organ toxicity - single exposure 3; Inhalation H335 Chronic hazards to the aquatic environment 2 H411 |
| Bis(.alpha.,.alpha.-Dimethylbenzyl) peroxide 80-43-3 | 201-279-3 | 0,1- 1 % | Chronic hazards to the aquatic environment 2 H411 Organic peroxides F H242 Serious eye irritation 2 H319 Skin irritation 2 H315 |

Only dangerous ingredients for which a CLP classification is already available are displayed in this table.
For full text of the H - statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.

Declaration of ingredients according to DPD (EC) No 1999/45:

| Hazardous components CAS-No. | EC Number REACH-Reg No. | content | Classification |
|---|----------------------------|------------|--|
| Silver 7440-22-4 | 231-131-3 | 80 - 100 % | |
| 2-Propionic acid, methyl ester reaction products with hydrolyzed formic acid- polydicyclopentadiene reaction product | | 10 - 20 % | Xn - Harmful; R20/21/22 Xi - Irritant; R36/37/38 |
| Dicyclopentenylxyethyl Methacrylate. 68586-19-6 | 271-608-3 | 1 - 5 % | Xn - Harmful; R20 Xi - Irritant; R36/37/38 |
| Bis(.alpha.,.alpha.-Dimethylbenzyl) peroxide 80-43-3 | 201-279-3 | 0,1 - 1 % | O - Oxidizing; R7 Xi - Irritant; R36/38 N - Dangerous for the environment; R51/53 |

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures**Description of first aid measures:****Inhalation:**

Move to fresh air, consult doctor if complaint persists.

Skin contact:

Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing. If necessary, see a dermatologist.

Eye contact:

Wash with plenty of water immediately and continue for several minutes, holding eyelid open. Consult a doctor.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

Most important symptoms and effects, both acute and delayed:

Prolonged or repeated skin contact with silver and its salts may cause a blue-gray discoloration of the skin and mucous membranes that is irreversible (Argyria).

Indication of any immediate medical attention and special treatment needed:

See section: Description of first aid measures

SECTION 5: Firefighting measures

Extinguishing media:

Suitable extinguishing media:

Foam, extinguishing powder, carbon dioxide.
Fine water spray

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

Special hazards arising from the substance or mixture:

Danger of decomposition if exposed to heat.
The product may undergo spontaneous polymerization at high temperatures. Polymerization is exothermic and may cause damage to the container and/or release of thermal decomposition products.
See section 10.

Advice for firefighters:

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Avoid contact with skin and eyes.
Wear protective equipment.
Ensure adequate ventilation.

Environmental precautions:

Do not empty into drains / surface water / ground water.

Methods and material for containment and cleaning up:

Remove mechanically.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
For small spills wipe up with paper towel and place in container for disposal.
Dispose of contaminated material as waste according to Chapter 13.

Reference to other sections:

See advice in chapter 8

SECTION 7: Handling and storage

Precautions for safe handling:

Extract when the product is heated.
Avoid naked flames, sparking and sources of ignition.
See advice in chapter 8

Hygiene measures:

Do not eat, drink or smoke while working.
Wash hands before work breaks and after finishing work.
Avoid skin and eye contact.
Extractors are required on all machines used for thermal or for cutting and grinding processes.

Conditions for safe storage, including any incompatibilities:

Store in sealed original container.
Protect against contamination.
Store in a cool, dry place.
Store protected from light.
Must be stored in a room with spill collection facilities.
Keep away from heat and direct sunlight.

Specific end use(s):

Die attach adhesive

SECTION 8: Exposure controls/personal protection**Control parameters:**

Valid for
Great Britain

| Ingredient | ppm | mg/m ³ | Type | Category | Remarks |
|--------------------------------|-----|-------------------|---------------------------------|------------|----------|
| SILVER (METALLIC) 7440-22-4 | | 0,1 | Time Weighted Average (TWA): | | EH40 WEL |
| SILVER, METALLIC 7440-22-4 | | 0,1 | Time Weighted Average (TWA): | Indicative | ECTLV |

Exposure controls:

Respiratory protection:

Suitable breathing mask when there is inadequate ventilation.
Suitable respiratory protection:
Filter type: A

Hand protection:

The use of chemical resistant gloves such as Nitrile are recommended.

Eye protection:

Goggles which can be tightly sealed.
and/or
facial protection

Skin protection:

Wear protective equipment.
Protective clothing that covers arms and legs.
apron

Advices to personal protection equipment:

Wash off any dirt that gets onto the skin with lots of soap and water, skin care.
Use solvent-resistant skin protection cream.
Do not breathe dust and vapors.

SECTION 9: Physical and chemical properties**Information on basic physical and chemical properties:**

Appearance
paste
pasty
grey
Odor
mild

pH
Initial boiling point
Flash point
Decomposition temperature
Vapour pressure
Density
(20 °C (68 °F))

No data available / Not applicable
Polymerization may occur at elevated temperature.
110,5 °C (230.9 °F)
No data available / Not applicable
No data available / Not applicable
3,8 g/cm³

| | |
|---|------------------------------------|
| Bulk density | No data available / Not applicable |
| Viscosity | No data available / Not applicable |
| Viscosity (kinematic) | No data available / Not applicable |
| Explosive properties | No data available / Not applicable |
| Solubility (qualitative) (20 °C (68 °F); Solvent: Water) | Not miscible or difficult to mix |
| Solidification temperature | No data available / Not applicable |
| Melting point | No data available / Not applicable |
| Flammability | No data available / Not applicable |
| Auto-ignition temperature | No data available / Not applicable |
| Explosive limits | No data available / Not applicable |
| Partition coefficient: n-octanol/water | No data available / Not applicable |
| Evaporation rate | No data available / Not applicable |
| Vapor density | No data available / Not applicable |
| Oxidising properties | No data available / Not applicable |

Other information:

No data available / Not applicable

SECTION 10: Stability and reactivity**Reactivity:**

Oxidizing agents, acids, halogens and halogenated compounds.
Free radical initiators.
Peroxides.
Water, Amines, Alkalis, Alcohols.
Forms an explosive mixture with nitric acid

Chemical stability:

Stable under recommended storage conditions.

Possibility of hazardous reactions:

See section reactivity

Conditions to avoid:

Exposure to light.
Danger of decomposition if exposed to heat.
Do not heat mixed adhesive unless you plan to use immediately.
Failure to observe these precautions may result in excessive heat build-up causing an exotherm.

Incompatible materials:

None if used properly.

Hazardous decomposition products:

Irritating vapors.
Metallic oxides
Polymerization may occur at elevated temperature or in the presence of incompatible materials.
May produce fumes when heated to decomposition. Fumes may contain carbon monoxide and other toxic fumes.
See section 5.

SECTION 11: Toxicological information**General toxicological information:**

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Dermal toxicity:

Prolonged or repeated skin contact with silver and its salts may cause a blue-gray discoloration of the skin and mucous membranes that is irreversible (Argyria).

Skin irritation:

slightly irritating, does not require labeling.

Eye irritation:

slightly irritating, does not require labeling.
Expected to cause eye irritation by abrasive action of tiny metal particles
Avoid eye contact.

Acute toxicity:

| Hazardous components CAS-No. | Value type | Value | Route of application | Exposure time | Species | Method |
|---------------------------------|---------------|---------------|-------------------------|------------------|---------|--|
| Silver 7440-22-4 | LD50 | > 2.000 mg/kg | oral | | rat | OECD Guideline 401 (Acute Oral Toxicity) |

Skin corrosion/irritation:

| Hazardous components CAS-No. | Result | Exposure time | Species | Method |
|---------------------------------|---------------------|------------------|---------|--|
| Silver 7440-22-4 | slightly irritating | | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |

Serious eye damage/irritation:

| Hazardous components CAS-No. | Result | Exposure time | Species | Method |
|---------------------------------|---------------------|------------------|---------|---|
| Silver 7440-22-4 | slightly irritating | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |

SECTION 12: Ecological information**General ecological information:**

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

If used properly the product does not enter the drains.

Ecotoxicity:

Do not empty into drains / surface water / ground water.

Mobility:

Cured adhesives are immobile.

Persistence and Biodegradability:

The product is not biodegradable.

Bioaccumulative potential:

No data available.

Toxicity:

| Hazardous components CAS-No. | Value type | Value | Acute Toxicity Study | Exposure time | Species | Method |
|---|---------------|--------------|----------------------------|------------------|---------------------|---|
| Dicyclopentenylxyethyl Methacrylate. 68586-19-6 | LC50 | 9 mg/l | Fish | 96 h | Lepomis macrochirus | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Bis(.alpha.,.alpha.-Dimethylbenzyl) peroxide 80-43-3 | LC50 | 108 mg/l | Fish | 96 h | Poecilia reticulata | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Bis(.alpha.,.alpha.-Dimethylbenzyl) peroxide 80-43-3 | EC50 | > 1.000 mg/l | Algae | 72 h | | OECD Guideline 201 (Alga, Growth Inhibition Test) |

Bioaccumulative potential / Mobility in soil:

| Hazardous components CAS-No. | LogKow | Bioconcentration factor (BCF) | Exposure time | Species | Temperature | Method |
|---|--------|----------------------------------|------------------|---------|-------------|--------|
| Bis(.alpha.,.alpha.-Dimethylbenzyl) peroxide 80-43-3 | 3,78 | | | | | |

SECTION 13: Disposal considerations

Waste treatment methods:

Product disposal:

Collection and delivery to recycling enterprise or other registered elimination institution.

Disposal of uncleaned packages:

Disposal must be made according to official regulations.

Use packages for recycling only when totally empty.

Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

Waste code

08 04 10 Waste adhesives and sealants other than those mentioned in 08 04 09.

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information

General information:

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture:

VOC content 1 %
(1999/13/EC)

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

R20 Harmful by inhalation.

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R36/37/38 Irritating to eyes, respiratory system and skin.

R36/38 Irritating to eyes and skin.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R7 May cause fire.

H242 Heating may cause a fire.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.