

# M-Bond 43B

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

www.vpgsensors.com
Date of issue:30/11/2022
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Version 5.0

#### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name M-Bond 43B
Product Code Not applicable
Unique Formula Identifier (UFI) Not applicable

Nanoform The product does not contain nanoparticles.

1.2 Relevant identified uses of the substance or mixture

and uses advised against

Identified Use(s) Adhesive.

Uses Advised Against Anything other than the above.

1.3 Details of the supplier of the safety data sheet

Company Identification VISHAY MEASUREMENTS GROUP GMBH

Tatschenweg 1 74078 Heilbronn Deutschland

 Telephone
 +49 (0) 7131 39099-0

 Fax
 +49 (0) 7131 39099-229

 E-Mail (competent person)
 mm.de@vpgsensors.com

1.4 Emergency telephone number

National Poisons Information Service (United Kingdom) +44 (0) 3448 920111 24 hr. emergency phone number

Healthcare Professionals ONLY

NHS 24 111 Members of Public Emergency Phone No.. (00-1) 703-527-3887 CHEMTREC (24 hours)

Languages spoken All official European languages.

# **SECTION 2: HAZARDS IDENTIFICATION**

2.1 Classification of the substance or mixture
2.1.1 Regulation (EC) No. 1272/2008 (CLP) Flam. Liq. 2; H225

Asp. Tox. 1; H304 Skin Irrit. 2; H315 Skin Sens. 1; H317 Eye Irrit. 2; H319 STOT SE 3; H335 STOT SE 3; H336 STOT RE 2; H373 Repr. 2; H361d

Aquatic Chronic 3; H412

2.2 Label elements According to Regulation (EC) No. 1272/2008 (CLP)

Product Name M-Bond 43-B

Hazard Pictogram(s)







Signal Word(s) DANGER

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Contains: Ethyl methyl ketone; Xylene; Reaction product: bisphenol-A-(epichlorhydrin);

epoxy resin (number average molecular weight < 700) and Diacetone alcohol.

Hazard Statement(s) H225: Highly flammable liquid and vapour.

H304: May be fatal if swallowed and enters airways.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction. H319: Causes serious eye irritation. H335: May cause respiratory irritation. H336: May cause drowsiness or dizziness.

H373: May cause damage to organs through prolonged or repeated exposure.

H361d: Suspected of damaging the unborn child. H412: Harmful to aquatic life with long lasting effects.

Precautionary Statement(s) P261: Avoid breathing mist/vapours/spray.

P264: Wash hands and exposed skin thoroughly after handling.

P280: Wear protective gloves and eye/face protection.

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P302+P352: IF ON SKIN: Wash with plenty of water.

P330: Rinse mouth.

Supplemental information None Known

2.3 Other hazards Vapours can form explosive mixtures with air.

#### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Substances** - Not applicable.

#### 3.2 Mixtures

EC Classification Regulation (EC) No. 1272/2008 (CLP)

| Chemical identity of the substance  | %W/W    | CAS No.    | EC No.    | REACH<br>Registration No.            | Hazard classification   |
|---|---------|------------|-----------|--------------------------------------|---|
| Ethyl methyl ketone   | 35 - 40 | 78-93-3    | 201-159-0 | Not yet assigned in the supply chain | Flam. Liq. 2; H225<br>Eye Irrit. 2; H319<br>STOT SE 3; H336<br>EUH066   |
| Xylene  | 20 - 25 | 1330-20-7  | 215-535-7 | Not yet assigned in the supply chain | Flam. Liq. 3; H226 Asp. Tox. 1; H304 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332 STOT SE 3; H335 STOT RE 2; H373 Aquatic Chronic 3; H412 |
| Reaction product: bisphenol-<br>A-(epichlorhydrin); epoxy<br>resin (number average<br>molecular weight < 700) | 15 - 20 | 25068-38-6 | 500-033-5 | Not yet assigned in the supply chain | Skin Irrit. 2; H315<br>Skin Sens. 1; H317<br>Eye Irrit. 2; H319<br>Aquatic Chronic 2; H411  |
| Diacetone alcohol   | 10 - 15 | 123-42-2   | 204-626-7 | Not yet assigned in the supply chain | Flam. Liq. 3; H226<br>Eye Irrit. 2; H319<br>STOT SE 3; H335<br>Repr. 2; H361d   |
| 4,4'-Sulfonydianiline   | 5 - 10  | 80-08-0    | 201-248-4 | Not yet assigned in the supply chain | Acute Tox. 4; H302<br>STOT SE 2; H371(blood)  |

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|  |  | STOT RE 1; H372 (Testes,        |
|--|--|---------------------------------|
|  |  | epididymis)(oral)               |
|  |  | STOT RE 2; H373 (blood, spleen, |
|  |  | liver)                          |
|  |  | Aquatic Chronic 2; H411         |

### Specific concentration limit (SCL) & M-factor

| Chemical identity of  | CAS No.    | EC No.    | Specific concentration limit (SCL)                           | M-factor   |
|---|------------|-----------|--|------------|
| the substance   |            |           |  |            |
| Reaction product: bisphenol-A- (epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) | 25068-38-6 | 500-033-5 | Skin Irrit. 2; H315: C ≥ 5 %<br>Eye Irrit. 2; H319 : C ≥ 5 % | -          |
| Diacetone alcohol   | 123-42-2   | 204-626-7 | Eye Irrit. 2; H319 : C ≥ 10 %                                | -          |
| 4,4'-Sulfonydianiline   | 80-08-0    | 201-248-4 | -  | Chronic: 1 |

Note: For full text of H phrases see section 16.

# **SECTION 4: FIRST AID MEASURES**



| 4.1 | Description of | of first aid | measures |
|-----|----------------|--------------|----------|
|-----|----------------|--------------|----------|

Self-protection of the first aider

Use personal protective equipment as required. Wear appropriate personal protective equipment, avoid direct contact. Ensure adequate ventilation. Avoid exposure during pregnancy. Do not breathe vapour. Do not use mouth-to-mouth

squaditation

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Apply artificial respiration only if patient is not breathing or under

medical supervision. Call a POISON CENTER/doctor if you feel unwell.

Skin Contact

IF ON SKIN: Remove contaminated clothing and wash all affected areas with plenty of water. Contaminated clothing should be thoroughly cleaned. If skin

irritation or rash occurs: Get medical advice/attention.

Eye Contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if eye

irritation develops or persists.

IF SWALLOWED: Rinse mouth. Do not give anything by mouth to an unconscious person. Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs. Immediately call a POISON

CENTER/doctor.

4.2 Most important symptoms and effects, both acute and

delayed

Ingestion

May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness and dizziness. May cause damage to organs through prolonged or repeated exposure. Suspected of damaging the unborn

child.

4.3 Indication of any immediate medical attention and

special treatment needed

Treat symptomatically.

IF SWALLOWED: Do NOT induce vomiting.

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#### SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media

Unsuitable extinguishing media

As appropriate for surrounding fire. Extinguish with carbon dioxide, dry chemical,

foam or waterspray.

Do not use water jet. Direct water jet may spread the fire.

5.2 Special hazards arising from the substance or mixture

Highly flammable liquid and vapour. May decompose in a fire giving off toxic fumes. Carbon dioxide and Carbon monoxide. Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback. Sealed containers may rupture explosively if hot.

5.3 Advice for fire-fighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers.

# **SECTION 6: ACCIDENTAL RELEASE MEASURES**

6.1 Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation. Stop leak if safe to do so. Eliminate all ignition sources if safe to do so. Do not breathe vapour. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. See Section: 8. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

6.2 Environmental precautions

Avoid release to the environment. Do not allow to enter drains, sewers or watercourses. In confined spaces, sewers, etc., the vapours may collect to form explosive mixtures with air. Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body.

6.3 Methods and material for containment and cleaning up

Ensure suitable personal protection (including respiratory protection) during removal of spillages. Contain spillages. Use non-sparking equipment when picking up flammable spill. Use waterspray to 'knock down' vapour. Adsorb spillages onto sand, earth or any suitable adsorbent material. Do NOT absorb in saw-dust or other combustible absorbents. Transfer to a container for disposal. Ventilate the area and wash spill site after material pick-up is complete. Dispose of this material and its container as hazardous waste.

6.4 Reference to other sections

See Section: 8, 13

### **SECTION 7: HANDLING AND STORAGE**

7.1 Precautions for safe handling

Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Do not breathe vapour. Use personal protective equipment as required. See Section: 8. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge.

7.2 Conditions for safe storage, including any incompatibilities

Ground/bond container and receiving equipment. Keep only in original container. Store in a well-ventilated place. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep away from direct sunlight.

Storage temperature Ambient

Storage life Stable under normal conditions Incompatible materials Keep away from: Oxidizing age

Keep away from: Oxidizing agents, Reducing agents, Amines, Ammonia, strong

bases, Acids and Isocyanates.

Storage class (TRGS 510) LGK 3

7.3 Specific end use(s) See Section: 1.2.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

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#### **Occupational Exposure Limits**

#### **United Kingdom**

| SUBSTANCE           | CAS No.   | LTEL (8 hr TWA ppm) | LTEL (8 hr TWA<br>mg/m³) | STEL (ppm) | STEL (mg/m³) | Note     |
|---------------------|-----------|---------------------|--------------------------|------------|--------------|----------|
| Ethyl methyl ketone | 78-93-3   | 200                 | 600                      | 300        | 899          | Sk, BMGV |
| Xylene              | 1330-20-7 | 50                  | 220                      | 100        | 441          | Sk, BMGV |
| Diacetone alcohol   | 123-42-2  | 50                  | 241                      | 75         | 362          | -        |

Source: UK WEL: Workplace Exposure Limit (UK HSE EH40)

Notations:

Sk: Can be absorbed through skin.

BMGV: Biological monitoring guidance value

#### Ireland

| SUBSTANCE           | CAS No.   | Occupational Exposure Limit Value |       | Occupational Exposure Limit Value |       | Notes     |
|---------------------|-----------|-----------------------------------|-------|-----------------------------------|-------|-----------|
|                     |           | (8-hour reference period)         |       | (15-minute reference period)      |       |           |
|                     |           | ppm                               | mg/m³ | ppm                               | mg/m³ |           |
| Ethyl methyl ketone | 78-93-3   | 200                               | 600   | 300                               | 900   | Sk, IOELV |
| Xylene              | 1330-20-7 | 50                                | 221   | 100                               | 442   | Sk, IOELV |
| Diacetone alcohol   | 123-42-2  | 50                                | 240   | -                                 | -     | -         |

Source: 2021 Code of Practice for Safety, Health and Welfare at Work (Chemical Agents) Regulation (2001 - 2021) and the Safety, Health and Welfare at Work (Carcinogens) Regulations (2001 - 2019); Health and Safety Authority

IOELV: Indicative Occupational Exposure Limit Value

Sk: Can be absorbed through skin.

#### 8.1.2 Biological limit value

| SUBSTANCE           | CAS No.   | Biological monitoring guidance value                  | Sampling Time |
|---------------------|-----------|---|---------------|
| Ethyl methyl ketone | 78-93-3   | 70 μmol butan-2-one/L in urine                        | Post shift    |
| Xylene              | 1330-20-7 | 650 mmol methyl hippuric acid/mol creatinine in urine | Post shift    |

Source: Bmgv: Biological monitoring guidance value (UK HSE EH40)

8.1.3 **PNECs and DNELs** Not established.

8.2 **Exposure controls** 

8.2.1 Appropriate engineering controls Ensure adequate ventilation Or Use appropriate containment. Atmospheric levels

should be controlled in compliance with the occupational exposure limit.

8.2.2 Individual protection measures, such as personal protective equipment (PPE)

General hygiene measures for the handling of chemicals are applicable. Avoid all contact. Avoid breathing vapours. Wash hands before breaks and after work. Keep work clothes separately. Contaminated clothing should be thoroughly cleaned. Do not eat, drink or smoke at the work place.

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Eye/ face protection Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection (EN166).

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Skin protection



#### Hand protection:

Wear impervious gloves (EN374). Gloves should be changed regularly to avoid permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Recommended: PVC / Nitrile rubber.

#### **Body protection:**

Wear impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection



Thermal hazards

Use only in well-ventilated areas. In case of inadequate ventilation wear respiratory protection. Open system(s): Wear suitable respiratory protective equipment. Select a filter suitable for organic gases and vapours. Recommended: EN143, Filter type A.

Not applicable

No data available

No data available

No data available

No data available

Slightly soluble (Water): < 20%

8.2.3 **Environmental exposure controls** 

Avoid release to the environment. Do not allow to enter drains, sewers or watercourses.

#### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Physical state Liquid (viscous) Colour Amber Odour Acetone Odour Melting point and freezing point -86°C 30℃

Boiling point or initial boiling point and boiling range Flammability

Lower and upper explosion limit or lower and upper Flammable Limits (Lower) (%v/v): 1 flammability limit Flammable Limits (Upper) (%v/v): 11.4

-9 ℃ [Open cup] Flash point Auto-ignition temperature No data available Decomposition temperature No data available

рΗ

Kinematic viscosity

Solubility

Partition coefficient: n-octanol/water (log value)

Vapour pressure 78 @ 20℃ (mmHg) Density and/or relative density  $0.92 (H_2O = 1)$ Relative vapour density 3.5 (Air = 1)Particle characteristics Not applicable

9.2 Other information

> Explosive properties Vapours can form explosive mixtures with air.

Oxidising properties Not oxidising. Volatile Organic Compound Content 738 g/L

### **SECTION 10: STABILITY AND REACTIVITY**

10.1 Reactivity Stable under normal conditions. 10.2 **Chemical stability** Stable under normal conditions.

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10.3 Possibility of hazardous reactions Highly flammable liquid and vapour. Vapours are heavier than air and may travel

considerable distances to a source of ignition and flashback. Avoid contact with: Strong oxidising agents (May cause fire).

Hazardous polymerisation will not occur.

10.4 Conditions to avoid Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking. Keep away from direct sunlight.

Keep away from: Oxidizing agents, Reducing agents, Amines, Ammonia, strong Incompatible materials 10.5

bases. Acids and Isocvanates.

10.6 Hazardous decomposition product(s) May decompose in a fire giving off toxic fumes. Carbon dioxide and Carbon

monoxide.

### **SECTION 11: TOXICOLOGICAL INFORMATION**

#### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Skin Contact

Ingestion Mixture: Based upon the available data, the classification criteria are not met.

Acute Toxicity Estimate Mixture Calculation: Estimated LD50 > 2000 mg/kg

bw/day.

Inhalation Mixture: Based upon the available data, the classification criteria are not met.

> Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 20 mg/l. (Vapour) Mixture: Based upon the available data, the classification criteria are not met.

Acute Toxicity Estimate Mixture Calculation: Estimated LD50 > 2000 mg/kg

bw/day.

Skin corrosion/irritation Mixture: Skin Irrit. 2: H315: Causes skin irritation.

Ethyl methyl ketone Prolonged skin contact will result in defatting of the skin, leading to irritation, and

in some cases, dermatitis. (Smith R & Mayers MR, 1944)

Xylene Skin Irrit. 2; H315

**EU Harmonised Classification** 

EU ECHA Registration Endpoint summary: Irritating to eyes, respiratory system

and skin.

Reaction product: bisphenol-A-(epichlorhydrin); epoxy Skin Irrit. 2; H315

resin (number average molecular weight < 700) EU Harmonised Classification

No data.

Serious eye damage/irritation Mixture: Eye Irrit. 2: Causes serious eye irritation.

Ethyl methyl ketone Eye Irrit. 2; H319: Causes serious eye irritation.

Test Result: Irritating to eyes. (OECD 405) ECHA Registration Endpoint

Xylene Eye Irrit. 2; H319: Causes serious eye irritation.

EU ECHA Registration Endpoint summary: Irritating to eyes, respiratory system

Reaction product: bisphenol-A-(epichlorhydrin); epoxy Eye Irrit. 2; H319: Causes serious eye irritation.

resin (number average molecular weight < 700) EU Harmonised Classification

Diacetone Alcohol Eye Irrit. 2; H319: Causes serious eye irritation.

EU ECHA Registration Endpoint summary: Irritating to eyes. (rabbit) (OCED

Respiratory or skin sensitization Mixture: Skin Sens. 1: May cause an allergic skin reaction.

Reaction product: bisphenol-A-(epichlorhydrin); epoxy Skin Sens. 1: May cause an allergic skin reaction.

resin (number average molecular weight < 700) **EU Harmonised Classification** 

No data.

Germ cell mutagenicity Mixture: Based upon the available data, the classification criteria are not met. Carcinogenicity Mixture: Based upon the available data, the classification criteria are not met. Reproductive toxicity Mixture: Repr. 2; H361d: Suspected of damaging the unborn child.

Diacetone alcohol Mixture: Repr. 2; H361d: Suspected of damaging the unborn child.

Maternal NOAEL: 1000 mg/kg/day,

embryo-fetal development NOAEL 1000 mg/kg/day.

EU ECHA registration dossier

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STOT - single exposure Mixture:

STOT SE 3; H335: May cause respiratory irritation. STOT SE 3; H336: May cause drowsiness or dizziness.

Ethyl methyl ketone STOT SE 3; H336: May cause drowsiness or dizziness.

Rats at all dose levels: gait and/or posture abnormalities. Higher dose groups some rats were comatose or prostrate within a few hours of dosing, with some

animals being unconscious for 24 hours. (OECD 423) Xvlene STOT SE 3: H335: May cause respiratory irritation.

EU ECHA Registration Endpoint summary: Irritating to eyes, respiratory system

and skin.

STOT - repeated exposure STOT RE 2: May cause damage to organs through prolonged or repeated

exposure.

Xylene STOT RE. 2; H373

Oral: Adverse effects observed – NOAEL (rat) 250 mg/kg bw/day Inhalation: Adverse effects observed – NOAEC (rat) 3515 mg/m $^3$ 

4,4'-Sulfonydianiline STOT SE 2; H371: May cause damage to organs:blood

STOT RE 1; H372: Causes damage to organs through prolonged or repeated

exposure: (Testes, epididymis)(oral)

Harmonised Classification; ECHA registration dossier

Aspiration hazard Asp. Tox. 1; H304: May be fatal if swallowed and enters airways. Xylene Asp. Tox. 1; H304: May be fatal if swallowed and enters airways.

EU ECHA registration dossier

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties This product does not contain a substance that has endocrine disrupting

properties with respect to humans as no components meets the criteria.

11.2.2 Other information None

#### SECTION 12: ECOLOGICAL INFORMATION

**12.1 Toxicity** Mixture: Aquatic Chronic 3; H412: Harmful to aquatic life with long lasting effects.

Xylene Aquatic Chronic 3; H412: Harmful to aquatic life with long lasting effects.

Chronic Toxicity: NOEC (Fish) mg/l >1.3 (Walsh et al, 1977)

ECHA registration dossier

Reaction product: bisphenol-A-(epichlorhydrin); epoxy Aquatic Chronic 2;H411: Toxic to aquatic life with long lasting effects.

resin (number average molecular weight < 700) Harmonised Classification

4,4'-Sulfonydianiline Aquatic Chronic 2;H411: Toxic to aquatic life with long lasting effects.

Harmonised Classification

**12.2** Persistence and degradability No data for the mixture as a whole.

Ethyl methyl ketone Readily biodegradable. (28 Days) (OECD 301 F)

Xylene Readily biodegradable. (10 Days) (OECD 301 F)

reaction product: bisphenol-A-(epichlorhydrin) epoxy Little or no biodegradation has been observed (OECD 301F)

resin (number average molecular weight ≤ 700):

Diacetone Alcohol Readily biodegradable. (10 Days) (OECD 301 F)

4,4'-Sulfonydianiline Not readily biodegradable.

**12.3** Bioaccumulative potential No data for the mixture as a whole.

Ethyl methyl ketone No data

Xylene The substance has low potential for bioaccumulation.

EU ECHA registration dossier

reaction product: bisphenol-A-(epichlorhydrin) epoxy No data.

resin (number average molecular weight ≤ 700):

Diacetone Alcohol The substance has low potential for bioaccumulation.

EU ECHA registration dossier

4,4'-Sulfonydianiline The substance has low potential for bioaccumulation.

EU ECHA registration dossier

**12.4 Mobility in soil** No data for the mixture as a whole.

Ethyl methyl ketone No data

Xylene The substance is predicted to have moderate mobility in soil.

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EU ECHA registration dossier

reaction product: bisphenol-A-(epichlorhydrin) epoxy

The substance is predicted to have low mobility in soil. Slightly soluble in: Water

resin (number average molecular weight ≤ 700): Diacetone Alcohol

The substance is predicted to have low mobility in soil.

EU ECHA registration dossier

4.4'-Sulfonydianiline

The substance is predicted to have low mobility in soil.

EU ECHA registration dossier

12.5 Results of PBT and vPvB assessment Not classified as PBT or vPvB.

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 None known

### **SECTION 13: DISPOSAL CONSIDERATIONS**

Waste treatment methods 13.1 This material and its container must be disposed of as hazardous waste. Dispose

of wastes in an approved waste disposal facility.

Directive 2008/98/EC (Waste Framework Directive) HP3, HP4, HP5, HP10, HP13,

HP14

**Additional Information** 13.2 Dispose of contents in accordance with local, state or national legislation.

### **SECTION 14: TRANSPORT INFORMATION**

|      |                            | ADR/RID          | ADN              | IMDG              | IATA/ICAO        |
|------|----------------------------|------------------|------------------|-------------------|------------------|
| 14.1 | UN number or ID number     | UN 1133          | UN 1133          | UN 1133           | UN 1133          |
| 14.2 | UN proper shipping name    | ADHESIVES        | ADHESIVES        | ADHESIVES         | ADHESIVES        |
|      |                            | containing       | containing       | containing        | containing       |
|      |                            | flammable liquid | flammable liquid | flammable liquid  | flammable liquid |
| 14.3 | Transport hazard class(es) | 3                | 3                | 3                 | 3                |
| 14.4 | Packing group              | II               | II               | II                | II               |
| 14.5 | Environmental hazards      | not applicable   | not applicable   | Not classified as | not applicable   |
|      |                            |                  |                  | a Marine          |                  |
|      |                            |                  |                  | Pollutant.        |                  |

14.6 Special precautions for user See Section: 2

14.7 Maritime transport in bulk according to IMO

instruments

14.8 **Additional Information** No information available.

### **SECTION 15: REGULATORY INFORMATION**

15.1 Safety, health and environmental

> regulations/legislation specific for the substance or mixture

**EU** regulations 15.1.1

> Use restriction according to REACH annex XVII, no.: Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-

Directive]

Restrictions of occupation:

Product: Entry number:: 3

No information available.

P5c

Observe restrictions to employment for juvenils according to the 'juvenile work

protection guideline' (94/33/EC).

To follow: Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of

workers from the risks related to chemical agents at work

15.1.2 National regulations Germany

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Water hazard class (WGK)

**Chemical Safety Assessment** 

strongly hazardous to water (WGK 3) (Selbsteinstufung gemäß AwSV (Gemisch, Rechenregel).)

(Gemisch, Rechenregel

A REACH chemical safety assessment has not been carried out.

#### **SECTION 16: OTHER INFORMATION**

The following sections contain revisions or new statements: V5.0 - New SDS Regulation 2020/878 format, all sections have been updated to include new information. Please review SDS with care.

#### References:

15.2

Existing Safety Data Sheet (SDS), EU Harmonised Classification(s) for Ethyl methyl ketone (CAS No. 78-93-3), Xylene (CAS No. 1330-20-7), Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight < 700) (CAS No. 25068-38-6), Diacetone alcohol (CAS No. 123-42-2) and 4,4'-Sulfonydianiline (CAS No. 80-80-0).

EU Existing ECHA registration(s) for Ethyl methyl ketone (CAS No. 78-93-3), Xylene (CAS No. 1330-20-7), Diacetone alcohol (CAS No. 123-42-2) and 4,4'-Sulfonydianiline (CAS No. 80-80-0).

1. Walsh, Armstrong, Bartley, Salman and Frank, 1977, Residues of emulsfied xylene in aquatic weed control and their impact on rainbow trout, Appl. Sci. Branch, Eng. Res. Cent. Denver, CO: 15p

EU Classification: This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

| Classification of the substance or mixture According to Regulation (EC) No. 1272/2008 (CLP) | Classification Procedure                              |
|---|---|
| Flam. Liq. 2; H225  | Flash Point [Open cup] Test Result/ Boiling Point (℃) |
| Asp. Tox. 1; H304   | Threshold Calculation, Estimated Viscosity            |
| Skin Irrit. 2; H315   | Threshold Calculation                                 |
| Skin Sens. 1; H317  | Threshold Calculation                                 |
| Eye Irrit. 2; H319  | Threshold Calculation                                 |
| STOT SE 3; H335   | Threshold Calculation                                 |
| STOT SE 3; H336   | Threshold Calculation                                 |
| STOT RE 2; H373   | Threshold Calculation                                 |
| Repr. 2; H361d  | Threshold Calculation                                 |
| Aquatic Chronic 3; H412   | Summation Calculation                                 |

LEGEND

**ADR** 

European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

DNEL Derived no effect level
EU European Union
EC European Community
ECHA European Chemicals Agency
EN European Standard

EC50 Effect concentration; 50 % EL50 Effective loading rate; 50 % IATA International Air Transport As

IATA International Air Transport Association
ICAO International Civil Aviation Organization
IMDG International Maritime Dangerous Goods
IMO International Maritime Organization

LC50 Lethal concentration at which 50% of the population is killed

LD50 Lethal dose at which 50% of the population is killed

LTEL Long term exposure limit

NOAEC No observed adverse effect concentration
NOEC No Observed Effect Concentration

OECD Organisation for Economic Cooperation and Development

PBT Persistent, Bioaccumulative and Toxic
PNEC Predicted No Effect Concentration

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### M-Bond 43B

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

www.vpgsensors.com Date of issue:30/11/2022 Date of First Issue: 20/03/2012 Version 5.0

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

Regulations concerning the International Carriage of Dangerous Goods by Rail RID

Time Weighted Average **TWA STEL** Short term exposure limit

vPvB very Persistent and very Bioaccumulative

UN **United Nations** 

VOC Volatile organic compounds

#### Hazard classification / Classification code: Hazard Statement(s)

Flam. Lig. 2; Flammable liquid, Category 2 H225: Highly flammable liquid and vapour. Flam. Liq. 3; Flammable liquid, Category 3 H226: Flammable liquid and vapour.

Asp. Tox. 1; Aspiration Toxicity, Category 1 H304: May be fatal if swallowed and enters airways. Acute Tox. 4; Acute toxicity, Category 4 H302: Harmful if swallowed.

Acute Tox. 4; Acute toxicity, Category 4 H312: Harmful in contact with skin. Acute Tox. 4; Acute toxicity, Category 4 H332: Harmful if inhaled.

Skin Irrit. 2; Skin corrosion/irritation, Category 2 H315: Causes skin irritation. Skin Sens. 1: Skin sensitisation, category 1 H317: May cause an allergic skin reaction.

Eve Irrit, 2: Serious eve damage/irritation, Category 2 H319: Causes serious eye irritation. STOT SE 3; Specific target organ toxicity — single exposure, Category 3 H335: May cause respiratory irritation.

STOT SE 3; Specific target organ toxicity — single exposure, Category 3 H336: May cause drowsiness or dizziness. Repr. 2; Reproductive toxicity, Category 2 H361d: Suspected of damaging the unborn child.

STOT SE 2; Specific target organ toxicity — single exposure, Category 2 H371: May cause damage to organs.

STOT RE 1; Specific target organ toxicity — repeated exposure, H372: Causes damage to organs through prolonged or repeated Category 1

exposure.

STOT RE 2; Specific target organ toxicity — repeated exposure, H373: May cause damage to organs through prolonged or repeated exposure.

Category 2

Aquatic Chronic 2; Hazardous to the aquatic environment, Chronic, Category 2

Aquatic Chronic 3; Hazardous to the aquatic environment, Chronic,

Category 3

H411: Toxic to aquatic life with long lasting effects.

H412: Harmful to aquatic life with long lasting effects.

EUH066: Repeated exposure may cause skin dryness or cracking.

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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