



Printing date 24.04.2024 Version number 5 (replaces version 4) Revision: 24.04.2024

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

- · 1.1 Product identifier
- · Trade name: 422B-Liquid
- · Other Means of Identification: Silicone Modified Conformal Coating
- Related Part Number:

422B-Liquid, 422B-55ML, 422B-1L, 422B-4L, 422BPX-4L, 422B-20L, 422B-20LTH, 422B-200L

- · UFI: J2C0-50PC-R00X-R5MR
- 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
- Application of the substance / the mixture
 Conformal coating for printed circuit boards and electronic components
- · 1.3 Details of the supplier of the safety data sheet M.G. Chemicals Ltd.
- Manufacturer/Supplier:

MG Chemicals Ltd. (Head Office) 1210 Corporate Drive Burlington, Ontario L7L 5R6 CANADA +(1) 800-340-0772

MG Chemicals Heame House, 23 Bliston Street Sedgely Dudley DY3 1JA. UNITED KINGDOM +(44) 1663 362888 sales@mgchemicals.com

MG Chemicalst Ltd. Level 2, Vision Exchange, Building Territorials Street, Zone 1, Central Business, District, Birkirkara CBD 1070, MALTA

- · Further information obtainable from: sds@mgchemicals.com
- · 1.4 Emergency telephone number:

Members of the public seeking specific information on poisons should contact:

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

Verisk 3E (Access code: 335388), +(44) 20 3514787 Other emergency telephone numbers: +(0) 800 680 0425

For hazardous material incidents ONLY (leaks, spills, fires, exposures or accidents) USA or CANADA-Call Verisk 3E at +1-866-519-4752 or +1-760-476-3962 (Service access code: 335388)

For emergencies involving the transport of dangerous goods; 24/7 service CANADA-Call CANUTEC collect at +1-613-996-6666 or *666 on cellular phones

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2 Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS08 health hazard

H351 Suspected of causing cancer. Carc. 2

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT RE 2 H373 May cause damage to the hearing organs through prolonged or

repeated exposure.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

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

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the GB CLP regulation.

Hazard pictograms







GHS02 GHS07 GHS08

- · Signal word Danger
- · Hazard-determining components of labelling:

acetone

ethylbenzene

· Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H351 Suspected of causing cancer.

H361 Suspected of damaging fertility or the unborn child.

H336 May cause drowsiness or dizziness.

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

H304 May be fatal if swallowed and enters airways.

H412 Harmful to aquatic life with long lasting effects.

· Precautionary statements

Keep out of reach of children. P102

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P201 Obtain special instructions before use.

P260 Do not breathe mist/vapours/spray.

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

Do NOT induce vomiting. P331

P308+P313 IF exposed or concerned: Get medical advice/attention.

P501 Dispose of contents/container in accordance with local/regional/national/

international regulations.

- · 2.3 Other hazards
- Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- Determination of endocrine-disrupting properties

Endocrine Disruptor substance ≥ 0.1% = none

3 Composition/information on ingredients

- · 3.2 Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.
- Dangerous components:

CAS: 67-64-1 acetone 41.0%

EINECS: 200-662-2 🚸 Flam. Liq. 2, H225; 🕠 Eye Irrit. 2, H319; STOT SE 3, H336,

EUH066

CAS: 1330-20-7 xylene 19-22%

EINECS: 215-535-7 🚯 Flam. Liq. 3, H226; 🗘 Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315

2-methoxy-1-methylethyl acetate

CAS: 108-65-6 4–6%

EINECS: 203-603-9 🚱 Flam. Liq. 3, H226

CAS: 100-41-4 ethylbenzene 4-5%

EINECS: 202-849-4 🚸 Flam. Liq. 2, H225; 🗞 STOT RE 2, H373; Asp. Tox. 1, H304; () Acute Tox. 4, H332

CAS: 108-88-3 < 0.5% toluene

EINECS: 203-625-9 Flam. Liq. 2, H225; Repr. 2, H361d; STOT RE 2, H373; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336

· Additional information: For the wording of the listed hazard phrases refer to section 16.

4 First aid measures

- · 4.1 Description of first aid measures
- · General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

• After inhalation:

In case of unconsciousness place patient stably in side position for transportation.

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: If symptoms persist consult doctor.
- · 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

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4.3 Indication of any immediate medical attention and special treatment neededNo further relevant information available.

5 Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixtureDuring heating or in case of fire poisonous gases are produced.

- 5.3 Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system. Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

· Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

- · 7.2 Conditions for safe storage, including any incompatibilities
- Storage
- · Requirements to be met by storerooms and receptacles: Store in a cool location.
- Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

7.3 Specific end use(s) No further relevant information available.

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8 Exposure controls/personal protection

- · 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:

67-64-1 acetone

WEL Short-term value: 3620 mg/m³, 1500 ppm Long-term value: 1210 mg/m³, 500 ppm

1330-20-7 xylene

WEL Short-term value: 441 mg/m³, 100 ppm Long-term value: 220 mg/m³, 50 ppm Sk; BMGV

108-65-6 2-methoxy-1-methylethyl acetate

WEL Short-term value: 548 mg/m³, 100 ppm Long-term value: 274 mg/m³, 50 ppm

100-41-4 ethylbenzene

WEL Short-term value: 552 mg/m³, 125 ppm Long-term value: 441 mg/m³, 100 ppm Sk

108-88-3 toluene

WEL Short-term value: 384 mg/m³, 100 ppm Long-term value: 191 mg/m³, 50 ppm

Ingredients with biological limit values:

1330-20-7 xylene

BMGV 650 mmol/mol creatinine

Medium: urine

Sampling time: post shift Parameter: methyl hippuric acid

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Appropriate engineering controls No further data; see section 7.
- · Individual protection measures, such as personal protective equipment
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Hand protection



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye/face protection



Tightly sealed goggles

9 Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Physical state

· Colour:

· Odour:

· Odour threshold:

• Melting point/freezing point:

· Boiling point or initial boiling point and

boiling range

· Flammability

Lower and upper explosion limit

· Lower:

Upper:

Flash point:

· Auto-ignition temperature:

Decomposition temperature:

· pH

Viscosity:

Kinematic viscosity

Dynamic:

· Solubility

· water:

· Partition coefficient n-octanol/water (log

value)

Vapour pressure at 20 °C:
Vapour pressure at 50 °C:

Density and/or relative density

Density at 20 ℃:

Relative density
Bulk density:

· Vapour density

Fluid

According to product specification

Characteristic Not determined. Undetermined.

55.8–56.6 ℃ (67-64-1 acetone)

Highly flammable.

1.1 Vol % (1330-20-7 xylene)

13 Vol % (67-64-1 acetone) -17 ℃ (67-64-1 acetone)

315 °C (108-65-6 2-methoxy-1-methylethyl

acetate)

Not determined.

Not determined.

Not determined.

Not determined.

Fully miscible.

Not determined.

233 hPa (67-64-1 acetone)

800 hPa

0.89 g/cm³ Not determined. 765–896 kg/m³ Not determined.

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· 9.2 Other information

· Appearance:

· Form: Fluid

Important information on protection of health and environment, and on safety.

Ignition temperature: Product is not selfigniting.

• Explosive properties: Product is not explosive. However, formation

of explosive air/vapour mixtures are possible.

· Solvent content:

• Organic solvents: 68.5–<74.5 %
 • VOC (EC) 68.5−<74.5 %
 • Solids content: 31–36 %

· Change in condition

· Evaporation rate Not determined.

Information with regard to physical hazard

classes

Explosives Void
Flammable gases Void
Aerosols Void
Oxidising gases Void
Gases under pressure Void

· Flammable liquids Highly flammable liquid and vapour.

Flammable solids
 Self-reactive substances and mixtures
 Pyrophoric liquids
 Pyrophoric solids
 Self-heating substances and mixtures

· Substances and mixtures, which emit

flammable gases in contact with water

Oxidising liquids
Oxidising solids
Organic peroxides
Corrosive to metals
Desensitised explosives
Void
Void
Void

10 Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity Based on available data, the classification criteria are not met.

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· LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Dermal LD50 9,091–10,526 mg/kg (rabbit)

Inhalative LC50/4 h 40.7-47.8 mg/l

67-64-1 acetone

Oral LD50 5,800 mg/kg (rat)
Dermal LD50 20,000 mg/kg (rabbit)

1330-20-7 xylene

Oral LD50 4,300 mg/kg (rat)
Dermal LD50 2,000 mg/kg (rabbit)

108-65-6 2-methoxy-1-methylethyl acetate
Oral LD50 8,532 mg/kg (rat)

Inhalative LC50/4 h 35.7 mg/l (rat)

100-41-4 ethylbenzene

Oral LD50 3,500 mg/kg (rat)
Dermal LD50 17,800 mg/kg (rabbit)

108-88-3 toluene

Oral LD50 5,000 mg/kg (rat)
Dermal LD50 12,124 mg/kg (rabbit)

Inhalative LC50/4 h 5,320 mg/l (mouse)

- · Skin corrosion/irritation Causes skin irritation.
- · Serious eye damage/irritation Causes serious eye irritation.
- · Respiratory or skin sensitisation

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

- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Suspected of causing cancer.
- · Reproductive toxicity Suspected of damaging fertility or the unborn child.
- · STOT-single exposure May cause drowsiness or dizziness.
- STOT-repeated exposure

May cause damage to the hearing organs through prolonged or repeated exposure.

- · Aspiration hazard May be fatal if swallowed and enters airways.
- 11.2 Information on other hazards
- Endocrine disrupting properties

None of the ingredients is listed.

12 Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · **vPvB:** Not applicable.
- · 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

- 12.7 Other adverse effects
- · Remark: Harmful to fish

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- Additional ecological information:
- General notes:

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water Do not allow product to reach ground water, water course or sewage system, even in small

Danger to drinking water if even extremely small quantities leak into the ground. Harmful to aquatic organisms

13 Disposal considerations

- · 13.1 Waste treatment methods
- Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

HP3 Flammable

HP4 Irritant - skin irritation and eye damage

HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

HP14 Ecotoxic

- Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information

- · 14.1 UN number or ID number
- · ADR, IMDG, IATA
- · 14.2 UN proper shipping name
- · ADR
- · IMDG
- ·IATA
- · 14.3 Transport hazard class(es)
- · ADR, IMDG, IATA



· Class

· Label

· 14.4 Packing group

· ADR, IMDG, IATA

· 14.5 Environmental hazards: · 14.6 Special precautions for user

· Hazard identification number (Kemler

code):

· EMS Number:

· Stowage Category

· 14.7 Maritime transport in bulk according to IMO instruments

3 Flammable liquids. 3

UN1263

PAINT

Paint

1263 PAINT

Not applicable.

Warning: Flammable liquids.

В

F-E,S-E

Not applicable.

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· Transport/Additional information:

· ADR

· Limited quantities (LQ) 5L

· Excepted quantities (ÉQ) Code: E2

Maximum net quantity per inner packaging: 30

ml

Maximum net quantity per outer packaging: 500

ml

Transport categoryTunnel restriction codeD/E

· IMDG

· Limited quantities (LQ) 5L

Excepted quantities (EQ) Code: E2

Maximum net quantity per inner packaging: 30

ml

Maximum net quantity per outer packaging: 500

ml

· UN "Model Regulation": UN 1263 PAINT, 3, II

15 Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Poisons Act
- · Regulated explosives precursors

None of the ingredients is listed.

· Regulated poisons

None of the ingredients is listed.

· Reportable explosives precursors

67-64-1 acetone: Listed

· Reportable poisons

None of the ingredients is listed.

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category P5c FLAMMABLE LIQUIDS
- · Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 48
- DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment Annex II

None of the ingredients is listed.

- · REGULATION (EU) 2019/1148
- Annex I RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

67-64-1 acetone

· Regulation (EC) No 273/2004 on drug precursors

67-64-1 acetone: 3

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108-88-3 toluene: 3

· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

67-64-1 acetone: 3 108-88-3 toluene: 3

· 15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

Highly flammable liquid and vapour. H225

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H336 May cause drowsiness or dizziness.

H361d Suspected of damaging the unborn child.

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

EUH066 Repeated exposure may cause skin dryness or cracking.

· Department issuing SDS: Product safety department.

Contact: sds@mgchemicals.com

· Date of previous version: 28.09.2023

· Version number of previous version: 4

Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

ATE: Acute toxicity estimate values

Flam. Lig. 2: Flammable liquids - Category 2

Flam. Liq. 3: Flammable liquids - Category 3

Acute Tox. 4: Acute toxicity - Category 4

Skin Irrit. 2: Skin corrosion/irritation - Category 2

Eye Irrit. 2: Serious eye damage/eye irritation - Category 2

Carc. 2: Carcinogenicity - Category 2

Repr. 2: Reproductive toxicity – Category 2 Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) - Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3

* Data compared to the previous version altered.