Kit Revision Date: 26/11/2024

841ER Super Shield™ Nickel Epoxy Conductive Coating Kit

MG Chemicals Multipart Product Kit

This product is a kit made up of multiple parts. Each part is an independently packaged chemical component and has independent hazard assessments.

Kit Content

Part	*Product Name*	*Product Use*
A	841ER-A	Nickel conductive epoxy resin
B	841ER-B	Nickel conductive epoxy Hardener

Safety Data Sheets for each part listed above follow this cover sheet.

Transportation Instruction

Before offering this product kit for transport, read Section 14 for all parts listed above.

Safety data sheet
according to UK REACH

Printing date 26.11.2024 Version number 3.01 (replaces version 3.00) Revision: 16.07.2024

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

· **1.1 Product identifier**

· **Trade name: 841ER-A**

· **Other Means of Identification:** Super Shield™ Nickel Epoxy Conductive Paint (Part A)

· **Related Part Number:** 841ER-Part A, 841ER-250ML, 841ER-1.17L, 841ER-3.25L
· **UFI:** RCK0-60C3-T000-Y657

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
· **Application of the substance / the mixture** Epoxy resin
· **Uses advised against** Not applicable

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**

MG Chemicals Ltd. (Head Office)
1210 Corporate Drive
Burlington, Ontario L7L 5R6
CANADA
+(1) 905-331-1396
info@mgchemicals.com

MG Chemicals
Heame House, 23 Bliston Street
Sedgely Dudley DY3 1JA.
United Kingdom
+(44) 1663 362888

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:**

Verisk 3E (Access code: 335388)
+(44) 20 3514787
+(1) 760 476 3961
UK Toll free: +(0) 800 680 0425

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

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SECTION 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.

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(Contd. of page 1)

GHS08 health hazard

Carc. 2	H351 Suspected of causing cancer. Route of exposure: Inhalation.
STOT RE 1	H372 Causes damage to the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.

GHS05 corrosion

Eye Dam. 1	H318 Causes serious eye damage.

GHS07

Skin Irrit. 2	H315 Causes skin irritation.
Skin Sens. 1	H317 May cause an allergic skin reaction.
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 GHS05 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labelling:**
nickel powder (particle diameter < 1 mm)
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
butan-1-ol
talc

· **Hazard statements**
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer. Route of exposure: Inhalation.
H336 May cause drowsiness or dizziness.
H372 Causes damage to the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.
H412 Harmful to aquatic life with long lasting effects.

· **Precautionary statements**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe mist/vapours/spray.

(Contd. on page 3)

(Contd. of page 2)

P280	Wear protective gloves, protective clothing, and eye protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents and container in accordance with local, regional, and national regulations.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Determination of endocrine-disrupting properties**		
78-93-3	Butan-2-one	List II

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**		
CAS: 7440-02-0 EINECS: 231-111-4 Index number: 028-002-01-4	nickel powder (particle diameter < 1 mm) Carc. 2, H351; STOT RE 1, H372; Skin Sens. 1, H317; Aquatic Chronic 3, H412	53.0%
CAS: 78-93-3 EINECS: 201-159-0 Index number: 606-002-00-3	Butan-2-one Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	15.0%
CAS: 123-86-4 EINECS: 204-658-1 Index number: 607-025-00-1	n-butyl acetate Flam. Liq. 3, H226; STOT SE 3, H336, EUH066	10.0%
CAS: 25068-38-6 NLP: 500-033-5 Index number: 603-074-00-8	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) Alternative CAS number: 1675-54-3 Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317, EUH205 Specific concentration limits: Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 %	8.0%
CAS: 71-36-3 EINECS: 200-751-6 Index number: 603-004-00-6	butan-1-ol Flam. Liq. 3, H226; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335-H336	7.0%
CAS: 14807-96-6 EINECS: 238-877-9	talc STOT SE 1, H370; STOT RE 1, H372	3.0%
CAS: 68609-97-2 EINECS: 271-846-8 Index number: 603-103-00-4	oxirane, mono[(C12-14-alkyloxy)methyl] derivs Skin Irrit. 2, H315; Skin Sens. 1, H317	2.0%

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

(Contd. on page 4)

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SECTION 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:**
Remove person to fresh air and keep comfortable for breathing.
If feeling unwell: Call a POISON CENTRE or doctor.
If exposed or concerned: Get medical advice/attention.

· **After skin contact:**
Take off immediately all contaminated clothing. Wash with plenty of water or shower.
Immediately call a POISON CENTRE or doctor.
Wash contaminated clothing before reuse.
If skin irritation or rash occurs: Get medical advice or attention.

· **After eye contact:**
Rinse cautiously with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor.

· **After swallowing:**
Rinse mouth.
Do NOT induce vomiting.
If symptoms persist consult doctor.
If exposed or concerned: Get medical advice or attention.

· **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 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.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **5.2 Special hazards arising from the substance or mixture**
The flu-like symptoms of metal fever may be delayed, occurring 4 to 12 hours after exposure.
During heating or in case of fire poisonous gases are produced.
Vapors are heavier than air. Vapors may travel to sources of ignition near the ground. They can cause flash fire or ignite explosively.
Prevent fire-fighting wash from entering waterway or sewer system.
Inhalation of metal fumes may cause metal fever and irritate the respiratory tract.
May produce very toxic nickel carbonyl gas in the presence of carbon monoxide in a reducing atmosphere.

· **Hazardous combustion products:**
Carbon Oxides (COx)
Nitrogen Oxides (NOx)
toxic metal fumes
nickel oxide fumes, tetracarbonylenickel

(Contd. on page 5)

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· **5.3 Advice for firefighters**
· **Protective equipment:** Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Remove or keep away all sources of extreme heat or open flames.
Do not breathe the mist/vapors/spray/fumes.

· **6.2 Environmental precautions:**
Avoid release to the environment.
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).
Collect liquid in a sealable, chemical-resistant container.
Wash residue with a paper towel and place dirty towels in container.
Use soap and water to remove the last traces of residue.

· **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.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**
Wear protective gloves and eye protection.
Wash hands and exposed skin thoroughly after handling.
Take off contaminated clothing and wash it before reuse.
Contaminated work clothing should not be allowed out of the workplace.
Use only outdoors or in a well-ventilated area.
Obtain, read and follow all safety instructions before use.
Do not breathe mist, vapours, spray.
· **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.
Use explosion-proof apparatus / fittings and spark-proof tools.
Ground and bond container and receiving equipment.

· **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.
Store locked up.

(Contd. on page 6)

(Contd. of page 5)

· **7.3 Specific end use(s)** See section 1.2

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**	
7440-02-0 nickel powder (particle diameter < 1 mm)	
WEL	Long-term value: 0.5 mg/m³ as Ni; Sk; Carc
78-93-3 Butan-2-one	
WEL	Short-term value: 899 mg/m³, 300 ppm Long-term value: 600 mg/m³, 200 ppm Sk, BMGV
123-86-4 n-butyl acetate	
WEL	Short-term value: 966 mg/m³, 200 ppm Long-term value: 724 mg/m³, 150 ppm
71-36-3 butan-1-ol	
WEL	Short-term value: 154 mg/m³, 50 ppm Sk

· **Ingredients with biological limit values:**	
78-93-3 Butan-2-one	
BMGV	70 µmol/L Medium: urine Sampling time: post shift Parameter: butan-2-one

· **Additional information:**
The lists valid during the making were used as basis.
Refer to the national or regional occupational exposure limit regulation for abbreviations and acronyms.

· **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 skin.
Avoid contact with the eyes and skin.

· **Respiratory protection:**
Advice should be sought from respiratory protection specialists.
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.
If the product is heated or worker has a known allergic reaction, consider using a full mask with organic vapor cartridge or with an independent air supply.

(Contd. on page 7)

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

Protective gloves: EN374

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

Safety glasses or tightly sealed goggles: EN 166

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **Physical state**	Liquid
· **Form:**	Viscous
· **Colour:**	Grey
· **Odour:**	Characteristic
· **Odour threshold:**	Not determined.
· **Melting point/freezing point:**	Undetermined.
· **Boiling point or initial boiling point and boiling range**	≥80 °C
· **Flammability**	Highly flammable.
· **Lower and upper explosion limit**	
· **Lower:**	1.2 Vol % (123-86-4 n-butyl acetate)
· **Upper:**	11.5 Vol % (78-93-3 Butan-2-one)
· **Flash point:**	-9 °C (78-93-3 Butan-2-one)
· **Auto-ignition temperature:**	340 °C (71-36-3 butan-1-ol)
· **Decomposition temperature:**	Not determined.
· **pH**	Not determined.
· **Viscosity:**	
· **Kinematic viscosity at 25 °C**	200 mm²/s
· **Dynamic:**	Not determined.
· **Solubility**	
· **water:**	Partly soluble.
· **Partition coefficient n-octanol/water (log value)**	Not determined.
· **Vapour pressure at 20 °C:**	105 hPa (78-93-3 Butan-2-one)

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· **Vapour pressure at 50 °C:**	55 hPa
· **Relative density at 25 °C:**	1.8
· **Vapour density (air=1):**	>4
· **Particle characteristics**	Not applicable.

· **9.2 Other information**

· **9.2.1 Information with regard to physical hazard classes**

· **Flammable liquids** Highly flammable liquid and vapour.

· **9.2.2 Other safety characteristics**

· **Evaporation rate**	Not determined.
· **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:**	32.00 %
· **VOC (EC)**	32.00 %

SECTION 10: Stability and reactivity

· **10.1 Reactivity**
Reacts exothermically with amines.
The nickel can react vigorously with acids and liberate hydrogen, which can form an explosive mixture in air.
Nickel may react with carbon monoxide in a reducing atmosphere to form a very toxic nickel carbonyl gas.

· **10.2 Chemical stability** Chemically stable at normal temperatures and pressures.

· **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**
Avoid open flames, excessive heat, sparks, ignition sources, and incompatible substances.

· **10.5 Incompatible materials:**
Strong bases
Ammonia
Strong oxidizing agents
Strong acids

· **10.6 Hazardous decomposition products:**
No dangerous decomposition products known.
Hazardous combustion products: see section 5.

SECTION 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.

· **LD/LC50 values relevant for classification:**

ATE (Acute Toxicity Estimates)		
Oral	LD50	11,286 mg/kg (rat)

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78-93-3 Butan-2-one		
Oral	LD50	2,737 mg/kg (rat)
Dermal	LD50	6,480 mg/kg (rabbit)
Inhalative	LC50/ 8 h	23,500 mg/m3 (rat)
123-86-4 n-butyl acetate		
Oral	LD50	>10,768 mg/kg (rat)
Dermal	LD50	>17,600 mg/kg (rabbit)
Inhalative	LC50/4 h	>21 mg/L (rat)
25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)		
Oral	LD50	11,400 mg/kg (rat)
71-36-3 butan-1-ol		
Oral	LD50	790 mg/kg (rat)
Dermal	LD50	3,400 mg/kg (rabbit)
Inhalative	LC50/4 h	8,000 mg/L (rat)
68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivs		
Oral	LD50	19,200 mg/kg (rat)
Dermal	LD50	4,500 mg/kg (rat)

· **Primary irritant effect:**
· **Skin corrosion/irritation** Causes skin irritation.
· **Serious eye damage/irritation** Causes serious eye damage.
· **Respiratory or skin sensitisation** May cause an allergic skin reaction.
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** Suspected of causing cancer. Route of exposure: Inhalation.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure** May cause drowsiness or dizziness.
· **STOT-repeated exposure**
Causes damage to the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.
· **Aspiration hazard** Based on available data, the classification criteria are not met.
· **Summary of Effects and Symptoms by Routes of Exposure**
· **Eyes:**
eye damage, pain
burns
redness
· **Skin:**
rash, allergic contact dermatitis
redness, irritation
dry skin
· **Inhalation:**
dizziness or drowsiness
headache
cough
shortness of breath
· **Swallowed:**
nausea
sore throat
abdominal pain
diarrhea
see inhalation symptoms

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· **Additional toxicological information:**
· **Delayed and immediate effects as well as chronic effects from short and long-term exposure**
Prolonged and repeated exposure to uncured epoxy hardener may lead to skin sensitization.
Chronic inhalation exposure to nickel dust, spray, or mist may damage lungs.

· **11.2 Information on other hazards**

· **Endocrine disrupting properties**		
78-93-3	Butan-2-one	List II

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**	
7440-02-0 nickel powder (particle diameter < 1 mm)	
EC50/ 72 h (static)	81.5–148 mg/L (algae)
LC50 96h	15.3 mg/L (trout) Contains nickel of less than a 1 mm but more than 100 nm (larger than nanoparticles), which release ionic nickel levels that are harmful to the environment. While massive nickel is insoluble in water, its powder is considered sufficiently soluble to give rise to an ecological hazard by EU regulators. The classification that follows takes into account to chronic aqueous toxicity of category 3 assignment of the EU.
LC50/ 48 h	0.074 mg/L (water flea)
123-86-4 n-butyl acetate	
LC50 96h	18 mg/L (minnow)

· **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** For information on endocrine disrupting properties see section 11.

· **12.7 Other adverse effects**
· **Remark:** Harmful to fish
· **Additional ecological information:**
· **General notes:**
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Harmful to aquatic organisms
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

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SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation** This material and its container must be disposed of as hazardous waste.

· **European waste catalogue**	
HP3	Flammable
HP4	Irritant - skin irritation and eye damage
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP7	Carcinogenic
HP13	Sensitising
HP14	Ecotoxic

· **Uncleaned packaging:**

· **Recommendation:**

Containers may still present a chemical hazard/ danger when empty.
Dispose of contents in accordance with all local, regional, national, and international regulations.
Where possible retain label warnings and SDS and observe all notices pertaining to the product.

SECTION 14: Transport information

· **14.1 UN number or ID number**

· **ADR, IMDG, IATA** UN1263

· **14.2 UN proper shipping name**

· **ADR, IMDG** PAINT

· **IATA** Paint

· **14.3 Transport hazard class(es)**

· **ADR, IMDG, IATA**

· **Class** 3 Flammable liquids.

· **Label** 3

· **14.4 Packing group**

· **ADR, IMDG, IATA** II

· **14.5 Environmental hazards:** Not applicable.

· **14.6 Special precautions for user** Not applicable.

· **Hazard identification number (Kemler code):** 33

· **EMS Number:** F-E,S-E

· **Stowage Category** B

· **14.7 Maritime transport in bulk according to IMO instruments** Not applicable.

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· **Transport/Additional information:**

Limited Quantity

841ER-250ML, 841ER-1.17L, 841ER-3.25L

· **ADR**	
· **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
· **Transport category**	2
· **Tunnel restriction code**	D/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

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SECTION 15: Regulatory information

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

· **Poisons Act**

· **Regulated explosives precursors (Part 1)**

None of the ingredients is listed.

· **Regulated poisons (Part 2)**

None of the ingredients is listed.

· **Reportable explosives precursors (Part 3)**

None of the ingredients is listed.

· **Reportable poisons (Part 4)**

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, 27

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· **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.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

* SECTION 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**
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H370 Causes damage to organs.
H372 Causes damage to organs through prolonged or repeated exposure.
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.
EUH205 EUH205: Contains epoxy constituents. May produce an allergic reaction.

· **Classification according to Regulation (EC) No 1272/2008**	
Flammable liquids	On basis of test data
Skin corrosion/irritation Serious eye damage/irritation Skin sensitisation Carcinogenicity Specific target organ toxicity (single exposure) Specific target organ toxicity (repeated exposure) Hazardous to the aquatic environment - long-term (chronic) aquatic hazard	The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

· **Department issuing SDS:** Regulatory department
· **Contact:** sds@mgchemicals.com
· **Date of previous version:** 16.07.2024
· **Version number of previous version:** 3.00
· **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

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vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
Flam. Liq. 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 Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
STOT SE 1: Specific target organ toxicity (single exposure) – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· *** Data compared to the previous version altered.**

Safety data sheet
according to UK REACH

Printing date 26.11.2024 Version number 3.01 (replaces version 3.00) Revision: 26.11.2024

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

· **1.1 Product identifier**

· **Trade name: 841ER-B**

· **Other Means of Identification:** Super Shield™ Nickel Epoxy Conductive Paint (Part B)

· **Related Part Number:** 841ER-Part B, 841ER-250ML (B), 841ER-1.17L (B), 841ER-3.25L (B)

· **UFI:** TFK0-Q01H-300G-MHR9

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

· **Application of the substance / the mixture** Epoxy Hardener

· **Uses advised against** Not applicable

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

· **Manufacturer/Supplier:**

MG Chemicals Ltd. (Head Office)
1210 Corporate Drive
Burlington, Ontario L7L 5R6
CANADA
+(1) 905-331-1396
info@mgchemicals.com

MG Chemicals
Heame House, 23 Bliston Street
Sedgely Dudley DY3 1JA.
United Kingdom
+(44) 1663 362888

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:**

Verisk 3E (Access code: 335388)
+(44) 20 3514787
+(1) 760 476 3961
UK Toll free: +(0) 800 680 0425

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

SECTION 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.

(Contd. on page 2)

(Contd. of page 1)

GHS08 health hazard

Carc. 2	H351 Suspected of causing cancer. Route of exposure: Inhalation.
STOT RE 1	H372 Causes damage to the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.

GHS05 corrosion

Eye Dam. 1	H318 Causes serious eye damage.

GHS07

Skin Irrit. 2	H315 Causes skin irritation.
Skin Sens. 1	H317 May cause an allergic skin reaction.
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 GHS05 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labelling:**
nickel powder (particle diameter < 1 mm)
fatty acids, C18-unsatd., dimers, reactionproducts with polyethylenepolyamines
butan-1-ol
talc

· **Hazard statements**
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer. Route of exposure: Inhalation.
H336 May cause drowsiness or dizziness.
H372 Causes damage to the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.
H412 Harmful to aquatic life with long lasting effects.

· **Precautionary statements**

P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe mist/vapours/spray.

(Contd. on page 3)

(Contd. of page 2)

P280	Wear protective gloves, protective clothing, and eye protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents and container in accordance with local, regional, and national regulations.

· **Additional information:**
EUH066 Repeated exposure may cause skin dryness or cracking.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Determination of endocrine-disrupting properties**		
78-93-3	Butan-2-one	List II

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**		
CAS: 7440-02-0 EINECS: 231-111-4 Index number: 028-002-01-4	nickel powder (particle diameter < 1 mm) Carc. 2, H351; STOT RE 1, H372; Skin Sens. 1, H317; Aquatic Chronic 3, H412	27.0%
CAS: 78-93-3 EINECS: 201-159-0 Index number: 606-002-00-3	Butan-2-one Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	22.0%
CAS: 68410-23-1	fatty acids, C18-unsatd., dimers, reactionproducts with polyethylenepolyamines Eye Dam. 1, H318; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin Sens. 1, H317	21.0%
CAS: 123-86-4 EINECS: 204-658-1 Index number: 607-025-00-1	n-butyl acetate Flam. Liq. 3, H226; STOT SE 3, H336, EUH066	18.0%
CAS: 71-36-3 EINECS: 200-751-6 Index number: 603-004-00-6	butan-1-ol Flam. Liq. 3, H226; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335-H336	7.0%
CAS: 14807-96-6 EINECS: 238-877-9	talc STOT SE 1, H370; STOT RE 1, H372	3.0%
CAS: 112-24-3 EINECS: 203-950-6 Index number: 612-059-00-5	3,6-diazaoctanethylenediamin Skin Corr. 1B, H314; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	2.0%

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

(Contd. on page 4)

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SECTION 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:**
Remove person to fresh air and keep comfortable for breathing.
If feeling unwell: Call a POISON CENTRE or doctor.
If exposed or concerned: Get medical advice/attention.

· **After skin contact:**
Take off immediately all contaminated clothing. Wash skin with plenty of water.
If skin irritation or rash occurs: Get medical advice or attention.
Wash contaminated clothing before reuse.
If exposed or concerned: Get medical advice or attention.

· **After eye contact:**
Rinse cautiously with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor.

· **After swallowing:**
Rinse mouth.
Do NOT induce vomiting.
If symptoms persist consult doctor.
If exposed or concerned: Get medical advice or attention.

· **4.2 Most important symptoms and effects, both acute and delayed**
In case of exposure to nitrogen oxides (NOx) combustion products or triethylenetetramine vapors during a fire, the symptoms may be delayed.
For significant exposures, the exposed person should be kept under medical surveillance for 48 hours.

· **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 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.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **5.2 Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
Vapors are heavier than air. Vapors may travel to sources of ignition near the ground. They can cause flash fire or ignite explosively.
Prevent fire-fighting wash from entering waterway or sewer system.
Inhalation of metal fumes may cause metal fever and irritate the respiratory tract.
The flu-like symptoms of metal fever may be delayed, occurring 4 to 12 hours after exposure.
May produce very toxic nickel carbonyl gas in the presence of carbon monoxide in a reducing atmosphere.
Inhalation of toxic smoke during fire may have delayed effects. Exposed person may need to be put under surveillance for 48 h.

· **Hazardous combustion products:**
Carbon Oxides (COx)
Nitrogen Oxides (NOx)
toxic metal fumes

(Contd. on page 5)

(Contd. of page 4)

nickel oxide fumes, tetracarbonylenickel

· **5.3 Advice for firefighters**

· **Protective equipment:** Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Remove or keep away all sources of extreme heat or open flames.
Do not breathe the mist/vapors/spray/fumes.

· **6.2 Environmental precautions:**
Avoid release to the environment.
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).
Collect liquid in a sealable, chemical-resistant container.
Wash residue with a paper towel and place dirty towels in container.
Use soap and water to remove the last traces of residue.

· **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.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**
Wear protective gloves and eye protection.
Wash hands and exposed skin thoroughly after handling.
Take off contaminated clothing and wash it before reuse.
Contaminated work clothing should not be allowed out of the workplace.
Use only outdoors or in a well-ventilated area.
Obtain, read and follow all safety instructions before use.
Do not breathe mist, vapours, spray.

· **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.
Use explosion-proof apparatus / fittings and spark-proof tools.
Ground and bond container and receiving equipment.

· **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.

(Contd. on page 6)

(Contd. of page 5)

Store locked up.

· **7.3 Specific end use(s)** See section 1.2

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**	
7440-02-0 nickel powder (particle diameter < 1 mm)	
WEL	Long-term value: 0.5 mg/m³ as Ni; Sk; Carc
78-93-3 Butan-2-one	
WEL	Short-term value: 899 mg/m³, 300 ppm Long-term value: 600 mg/m³, 200 ppm Sk, BMGV
123-86-4 n-butyl acetate	
WEL	Short-term value: 966 mg/m³, 200 ppm Long-term value: 724 mg/m³, 150 ppm
71-36-3 butan-1-ol	
WEL	Short-term value: 154 mg/m³, 50 ppm Sk

· **Ingredients with biological limit values:**	
78-93-3 Butan-2-one	
BMGV	70 µmol/L Medium: urine Sampling time: post shift Parameter: butan-2-one

· **Additional information:**
The lists valid during the making were used as basis.
Refer to the national or regional occupational exposure limit regulation for abbreviations and acronyms.

· **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 skin.
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.
Advice should be sought from respiratory protection specialists.
If the product is heated or worker has a known allergic reaction, consider using a full mask with organic vapor cartridge or with an independent air supply.

(Contd. on page 7)

(Contd. of page 6)

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

Protective gloves: EN374

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

Safety glasses or tightly sealed goggles: EN 166

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **Physical state**	Liquid
· **Form:**	Low viscosity
· **Colour:**	Grey
· **Odour:**	Ammonia-like
· **Odour threshold:**	Not determined.
· **Melting point/freezing point:**	Undetermined.
· **Boiling point or initial boiling point and boiling range**	≥80 °C
· **Flammability**	Highly flammable.
· **Lower and upper explosion limit**	
· **Lower:**	1 Vol %
· **Upper:**	11 Vol %
· **Flash point:**	-9 °C (78-93-3 Butan-2-one)
· **Auto-ignition temperature:**	338 °C
· **Decomposition temperature:**	Not determined.
· **pH**	Not determined.
· **Viscosity:**	
· **Kinematic viscosity at 25 °C**	<20.5 mm²/s
· **Dynamic:**	Not determined.
· **Solubility**	
· **water:**	Partly soluble.
· **Partition coefficient n-octanol/water (log value)**	Not determined.
· **Vapour pressure at 20 °C:**	105 hPa (78-93-3 Butan-2-one)

(Contd. on page 8)

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· **Vapour pressure at 50 °C:**	55 hPa
· **Relative density at 25 °C:**	1.19
· **Vapour density (air=1):**	>4
· **Particle characteristics**	Not applicable.

· **9.2 Other information**

· **9.2.1 Information with regard to physical hazard classes**

· **Flammable liquids** Highly flammable liquid and vapour.

· **9.2.2 Other safety characteristics**

· **Evaporation rate**	Not determined.
· **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:**	47.00 %
· **VOC (EC)**	47.00 %
· **Solids content:**	0.0 %

SECTION 10: Stability and reactivity

· **10.1 Reactivity**
Reacts exothermically with ketones, halogenated hydrocarbons, cyanides, nitriles, and epoxides.
May attack metals such as aluminum, zinc, copper, and their alloys.
The nickel can react vigorously with acids and liberate hydrogen, which can form an explosive mixture in air.
Nickel may react with carbon monoxide in a reducing atmosphere to form a very toxic nickel carbonyl gas.

· **10.2 Chemical stability** Chemically stable at normal temperatures and pressures.

· **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**
Avoid open flames, excessive heat, sparks, ignition sources, and incompatible substances.

· **10.5 Incompatible materials:** Strong acids

· **10.6 Hazardous decomposition products:**
No dangerous decomposition products known.
Hazardous combustion products: see section 5.

SECTION 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.

· **LD/LC50 values relevant for classification:**

ATE (Acute Toxicity Estimates)		
Oral	LD50	11,286 mg/kg (rat)
Dermal	LD50	40,250 mg/kg (rabbit)

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78-93-3 Butan-2-one		
Oral	LD50	2,737 mg/kg (rat)
Dermal	LD50	6,480 mg/kg (rabbit)
Inhalative	LC50/ 8 h	23,500 mg/m3 (rat)
123-86-4 n-butyl acetate		
Oral	LD50	>10,768 mg/kg (rat)
Dermal	LD50	>17,600 mg/kg (rabbit)
Inhalative	LC50/4 h	>21 mg/L (rat)
71-36-3 butan-1-ol		
Oral	LD50	790 mg/kg (rat)
Dermal	LD50	3,400 mg/kg (rabbit)
Inhalative	LC50/4 h	8,000 mg/L (rat)
112-24-3 3,6-diazaoctanethylenediamin		
Oral	LD50	2,500 mg/kg (rat)
Dermal	LD50	805 mg/kg (rabbit)

· **Primary irritant effect:**
· **Skin corrosion/irritation** Causes skin irritation.
· **Serious eye damage/irritation** Causes serious eye damage.
· **Respiratory or skin sensitisation** May cause an allergic skin reaction.
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** Suspected of causing cancer. Route of exposure: Inhalation.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure** May cause drowsiness or dizziness.
· **STOT-repeated exposure**
Causes damage to the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.
· **Aspiration hazard** Based on available data, the classification criteria are not met.
· **Summary of Effects and Symptoms by Routes of Exposure**
· **Eyes:**
eye damage, pain
pain
redness
burns
· **Skin:**
rash, allergic contact dermatitis
dry skin
Triethylenetetramine can be absorbed through skin leading to toxic effects.
When heated, hot triethylenetetramine vapors may also result in itching of the face with skin redness (erythema) and swelling (edema).
redness, irritation
· **Inhalation:**
dizziness or drowsiness
cough
shortness of breath
headache
· **Swallowed:**
nausea
sore throat
abdominal pain
diarrhea

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see inhalation symptoms

· **Additional toxicological information:**

· **Delayed and immediate effects as well as chronic effects from short and long-term exposure**
Prolonged or repeated exposure may defat skin and cause skin dryness and cracking, and local redness and discomfort.
Prolonged or repeated exposure may cause skin allergies.
Chronic inhalation exposure to nickel dust, spray, or mist may damage lungs.

· **11.2 Information on other hazards**

· **Endocrine disrupting properties**		
78-93-3	Butan-2-one	List II

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**	
7440-02-0 nickel powder (particle diameter < 1 mm)	
EC50/ 72 h (static)	81.5–148 mg/L (algae)
LC50 96h	15.3 mg/L (trout) Contains nickel of less than a 1 mm but more than 100 nm (larger than nanoparticles), which release ionic nickel levels that are harmful to the environment. While massive nickel is insoluble in water, its powder is considered sufficiently soluble to give rise to an ecological hazard by EU regulators. The classification that follows takes into account to chronic aqueous toxicity of category 3 assignment of the EU.
LC50/ 48 h	0.074 mg/L (water flea)
123-86-4 n-butyl acetate	
LC50 96h	18 mg/L (minnow)
112-24-3 3,6-diazaoctanethylenediamin	
EC50/ 48 h	24 mg/L (daphnia)
LC50 96h	420 mg/L (guppie)
IC50 72h	2 mg/L (algae)

· **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** For information on endocrine disrupting properties see section 11.

· **12.7 Other adverse effects**

· **Remark:** Harmful to fish

· **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 quantities.
Must not reach sewage water or drainage ditch undiluted or unneutralised.

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

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation** This material and its container must be disposed of as hazardous waste.

· **European waste catalogue**	
HP3	Flammable
HP4	Irritant - skin irritation and eye damage
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP7	Carcinogenic
HP13	Sensitising
HP14	Ecotoxic

· **Uncleaned packaging:**

· **Recommendation:**
Containers may still present a chemical hazard/ danger when empty.
Dispose of contents in accordance with all local, regional, national, and international regulations.
Where possible retain label warnings and SDS and observe all notices pertaining to the product.

SECTION 14: Transport information

· **14.1 UN number or ID number**
· **ADR, IMDG, IATA** UN1263

· **14.2 UN proper shipping name**
· **ADR, IMDG** PAINT
· **IATA** Paint

· **14.3 Transport hazard class(es)**

· **ADR, IMDG, IATA**

· **Class** 3 Flammable liquids.
· **Label** 3

· **14.4 Packing group**
· **ADR, IMDG, IATA** II

· **14.5 Environmental hazards:** Not applicable.

· **14.6 Special precautions for user** Not applicable.
· **Hazard identification number (Kemler code):** 33
· **EMS Number:** F-E,S-E

(Contd. on page 12)

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· **Stowage Category**	B
· **14.7 Maritime transport in bulk according to IMO instruments**	Not applicable.
· **Transport/Additional information:**	

Limited Quantity

841ER-250ML, 841ER-1.17L, 841ER-3.25L

· **ADR**	
· **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
· **Transport category**	2
· **Tunnel restriction code**	D/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

SECTION 15: Regulatory information

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

· **Poisons Act**

· **Regulated explosives precursors (Part 1)**

None of the ingredients is listed.

· **Regulated poisons (Part 2)**

None of the ingredients is listed.

· **Reportable explosives precursors (Part 3)**

None of the ingredients is listed.

· **Reportable poisons (Part 4)**

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

(Contd. on page 13)

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· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 27

· **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.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 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**
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H370 Causes damage to organs.
H372 Causes damage to organs through prolonged or repeated exposure.
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.

· **Classification according to Regulation (EC) No 1272/2008**	
Flammable liquids	On basis of test data
Skin corrosion/irritation Serious eye damage/irritation Skin sensitisation Carcinogenicity Specific target organ toxicity (single exposure) Specific target organ toxicity (repeated exposure) Hazardous to the aquatic environment - long-term (chronic) aquatic hazard	The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

· **Department issuing SDS:** Regulatory department
· **Contact:** sds@mgchemicals.com
· **Date of previous version:** 17.05.2024
· **Version number of previous version:** 3.00
· **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)

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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. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
STOT SE 1: Specific target organ toxicity (single exposure) – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3