



Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 28.03.2017

Revision: 28.03.2017

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name:** *Q 40-610 Zinc Spray***Article number (product ID.):** *Q 40-610-0400***1.2 Relevant identified uses of the substance or mixture and uses advised against****Application of the substance / the mixture:** *painting***Uses advised against** *No further relevant information available.***1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:***Q-Company Int. GmbH**Beckershof 3**24558 Henstedt-Ulzburg**E-mail: msds@qrefinish.com***Further information obtainable from:** *Product safety department***1.4 Emergency telephone number:***+49 (0)551-19240 (Giftinformationszentrum-Nord)***SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008***GHS02 flame**Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.**GHS09 environment**Aquatic Acute 1 H400 Very toxic to aquatic life.**Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.**GHS07**Skin Irrit. 2 H315 Causes skin irritation.***2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008***The product is classified and labelled according to the CLP regulation.***Hazard pictograms***GHS02**GHS07**GHS09*

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 28.03.2017

Revision: 28.03.2017

Trade name: **Q 40-610 Zinc Spray**

(Contd. of page 1)

- **Signal word** *Danger*
- **Hazard statements**
 - H222-H229 *Extremely flammable aerosol. Pressurised container: May burst if heated.*
 - H315 *Causes skin irritation.*
 - H410 *Very toxic to aquatic life with long lasting effects.*
- **Precautionary statements**
 - P101 *If medical advice is needed, have product container or label at hand.*
 - P102 *Keep out of reach of children.*
 - P103 *Read label before use.*
 - P210 *Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.*
 - P211 *Do not spray on an open flame or other ignition source.*
 - P251 *Do not pierce or burn, even after use.*
 - P273 *Avoid release to the environment.*
 - P302+P352 *IF ON SKIN: Wash with plenty of water.*
 - P332+P313 *If skin irritation occurs: Get medical advice/attention.*
 - P391 *Collect spillage.*
 - P410+P412 *Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.*
 - P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*
- **Additional information:** *Without adequate ventilation, explosive atmosphere/gas mix may be created.*
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** *Mixture of substances listed below with nonhazardous additions.*

· **Dangerous components:**

CAS: 7440-66-6 EINECS: 231-175-3	zinc powder -zinc dust (stabilized) ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	25-<50%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21-xxxx	propane ⚠ Flam. Gas 1, H220; ⚠ Press. Gas C, H280	10-<25%
CAS: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-32-xxxx	butane (containing ≤ 0,1 % butadiene (203-450-8)) ⚠ Flam. Gas 1, H220; ⚠ Press. Gas C, H280	10-<25%
CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119488216-32-xxxx	xylene ⚠ Flam. Liq. 3, H226; ⚠ Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	10-<25%
CAS: 123-86-4 EINECS: 204-658-1 Reg.nr.: 01-2119485493-29-xxxx	n-butyl acetate ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	5-<10%
CAS: 75-28-5 EINECS: 200-857-2 Reg.nr.: 01-2119485395-27-xxxx	isobutane (containing ≤ 0,1 % butadiene (203-450-8)) ⚠ Flam. Gas 1, H220; ⚠ Press. Gas C, H280	5-<10%
CAS: 115-10-6 EINECS: 204-065-8 Reg.nr.: 01-2119472128-37-xxxx	dimethyl ether ⚠ Flam. Gas 1, H220; ⚠ Press. Gas C, H280	5-<10%

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.03.2017

Revision: 28.03.2017

Trade name: **Q 40-610 Zinc Spray**

(Contd. of page 2)

CAS: 100-41-4 EINECS: 202-849-4	ethylbenzene Flam. Liq. 2, H225; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H332	I-<2.5%
EC number: 918-167-1	hydrocarbons, C11-C12, Isoalkanes, < 2% Aromatics Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 4, H413	I-<2.5%
CAS: 540-84-1 EINECS: 208-759-1	2,2,4-trimethylpentane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Irrit. 2, H315; STOT SE 3, H336	I-<2.5%
CAS: 142-82-5 EINECS: 205-563-8	heptane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Irrit. 2, H315; STOT SE 3, H336	I-<2.5%
CAS: 108-87-2 EINECS: 203-624-3	methylcyclohexane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	I-<2.5%

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

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **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.
Cool container with water
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** Can form explosive gas-air mixtures.
- **5.3 Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 28.03.2017

Revision: 28.03.2017

Trade name: **Q 40-610 Zinc Spray**

(Contd. of page 3)

- **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**
Keep away from heat and direct sunlight.
Ensure good ventilation/exhaustion at the workplace.
Take note of emission threshold.
Use only in well ventilated areas.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
- **Information about fire - and explosion protection:**
Do not spray onto a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Observe official regulations on storing packagings with pressurised containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

106-97-8 butane (containing ≤0,1 % butadiene (203-450-8))

WEL	Short-term value: 1810 mg/m ³ , 750 ppm Long-term value: 1450 mg/m ³ , 600 ppm Carc (if more than 0.1% of buta-1.3-diene)
-----	---

1330-20-7 xylene

WEL	Short-term value: 441 mg/m ³ , 100 ppm Long-term value: 220 mg/m ³ , 50 ppm Sk; BMGV
-----	--

123-86-4 n-butyl acetate

WEL	Short-term value: 966 mg/m ³ , 200 ppm Long-term value: 724 mg/m ³ , 150 ppm
-----	---

115-10-6 dimethyl ether

WEL	Short-term value: 958 mg/m ³ , 500 ppm Long-term value: 766 mg/m ³ , 400 ppm
-----	---

100-41-4 ethylbenzene

WEL	Short-term value: 552 mg/m ³ , 125 ppm Long-term value: 441 mg/m ³ , 100 ppm Sk
-----	---

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 28.03.2017

Revision: 28.03.2017

Trade name: **Q 40-610 Zinc Spray**

(Contd. of page 4)

142-82-5 heptaneWEL Long-term value: 2085 mg/m³, 500 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**· **Personal protective equipment:**· **General protective and hygienic measures:**

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

· **Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Half mask with combination filter, class A1P2 minimum, or breathing mask with outer air supply.

· **Protection of hands:**

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** Nitrile rubber, NBR· **Penetration time of glove material**

Gloves must be changed after every contamination.

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

· **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

butyl rubber, 0,7mm

· **Eye protection:**

Tightly sealed goggles

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

Form: Aerosol
Colour: According to product specification
· **Odour:** Characteristic
· **Odour threshold:** Not determined.

· **pH-value:** Not determined.· **Change in condition**

Melting point/freezing point: Undetermined.
Initial boiling point and boiling range: -44 °C

(Contd. on page 6)

GB

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 28.03.2017

Revision: 28.03.2017

Trade name: Q 40-610 Zinc Spray

(Contd. of page 5)

· Flash point:	<0 °C Without propellant gas.
· Flammability (solid, gas):	Not applicable.
· Ignition temperature:	235 °C
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	In use, may form flammable/explosive vapour-air mixture.
· Explosion limits:	
Lower:	1.1 Vol %
Upper:	10.9 Vol %
· Vapour pressure at 20 °C:	3600 hPa
· Density:	Not determined.
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	62.7 % With propellant gas. Content given by weight.
VOC (EU)	62.67 %
Solids content:	37.3 %
· 9.2 Other information	No further relevant information available.

SECTION 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** Reacts with acids, alkalis and oxidising agents.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** Possible in traces.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

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

1330-20-7 xylene

Oral	LD50	4300 mg/kg (rat)
------	------	------------------

(Contd. on page 7)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.03.2017

Revision: 28.03.2017

Trade name: **Q 40-610 Zinc Spray**

(Contd. of page 6)

Dermal	LD50	2000 mg/kg (rabbit)
Inhalative	LC50/4 h	21.7 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity

· Aquatic toxicity:	
7440-66-6 zinc powder -zinc dust (stabilized)	
LC50/48h	0.068 mg/l (daphnia)
LC50/96h	450 µg/l (Cyprinus carpio)
1330-20-7 xylene	
LC50/96h	1570 µg/l (Cyprinus carpio) Median
142-82-5 heptane	
EC50	>10 mg/l (daphnia) (24h)
LC50/24h	4 mg/l (Carassius auratus (Goldfisch)) (ASTM D1345)

- **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.
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**
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.
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Ikke relevant.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 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.

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 28.03.2017

Revision: 28.03.2017

Trade name: Q 40-610 Zinc Spray

(Contd. of page 7)

· **European waste catalogue**

15 01 10* | packaging containing residues of or contaminated by hazardous substances

· **Uncleaned packaging:**· **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· **14.1 UN-Number**· **ADR, IMDG, IATA** UN1950· **14.2 UN proper shipping name**

· **ADR** 1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS
 · **IMDG** AEROSOLS (zinc powder -zinc dust (stabilized)), MARINE POLLUTANT
 · **IATA** AEROSOLS, flammable

· **14.3 Transport hazard class(es)**· **ADR**

· **Class** 2 5F Gases.
 · **Label** 2.1

· **IMDG**

· **Class** 2.1
 · **Label** 2.1

· **IATA**

· **Class** 2.1
 · **Label** 2.1

· **14.4 Packing group**· **ADR, IMDG, IATA** Void
not classified· **14.5 Environmental hazards:**Product contains environmentally hazardous substances:
zinc powder -zinc dust (stabilized)· **Marine pollutant:**

Symbol (fish and tree)

· **Special marking (ADR):**

Symbol (fish and tree)

· **14.6 Special precautions for user**

Warning: Gases.

· **Danger code (Kemler):**-
not classified

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 28.03.2017

Revision: 28.03.2017

Trade name: Q 40-610 Zinc Spray

(Contd. of page 8)

· EMS Number:	F-D,S-U
· Stowage Code	SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· Transport category	2
· Tunnel restriction code	D
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

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

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Seveso category**

E1 Hazardous to the Aquatic Environment

P3a FLAMMABLE AEROSOLS

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **National regulations:**

· **Technical instructions (air):**

Class	Share in %
NK	50-100

· **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

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

GB

(Contd. on page 10)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 28.03.2017

Revision: 28.03.2017

Trade name: **Q 40-610 Zinc Spray**

(Contd. of page 9)

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**

- H220 Extremely flammable gas.
- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H280 Contains gas under pressure; may explode if heated.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H332 Harmful if inhaled.
- H336 May cause drowsiness or dizziness.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
- H413 May cause long lasting harmful effects to aquatic life.

· **Abbreviations and acronyms:**

- ADR: Accord européen sur le transport 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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Flam. Gas 1: Flammable gases – Category 1
- Aerosol 1: Aerosols – Category 1
- Press. Gas C: Gases under pressure – Compressed gas
- 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
- 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 Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
- Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
- Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
- Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4

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