



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

- **Date of compilation:** 06.06.2014
- **1.1 Product identifier**
- **Trade name:** VOC Hardener 10/15 15/20 20/25 25/30
- **Article number(s):** 80600 / 80500 / 80400 / 80300
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the preparation:** Paint related material
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer / Supplier:**
Quartz Refinish Limited, Morleys Group Phone: +44 1332 611893
250 Osmaston Road, Derby Fax: +44 1332 331611
DE23 8LB, England
- **E-mail address of the competent person responsible for the Safety Data Sheet:** info@spraygunsdirect.co.uk
- **Informing department:** Sprayguns Direct Limited, Morleys Group
- **1.4 Emergency telephone number:** +44 1332 611893

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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. 3 H226 Flammable liquid and vapour.
-  **GHS07**
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H336 May cause drowsiness or dizziness.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xn; Harmful

R20: Harmful by inhalation.



Xi; Sensitising

R43: May cause sensitisation by skin contact.

R10-66-67: Flammable. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

- **Information concerning particular hazards for human and environment:**
Vapours of the product are heavier than air and may accumulate on the ground, in mines, drains or cellars with higher concentration.
Heightened risk of fire and danger of explosion at accumulation in lower-lying or closed rooms.
Has a narcotizing effect.
- **Classification system:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)

GB



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

Version number 1

Revision: 07.06.2014

Trade name: VOC Hardener 10/15 15/20 20/25 25/30

(Contd. of page 1)

· Hazard pictograms



GHS02 GHS07

· Signal word Warning

· Hazard-determining components of labelling:

Hexane, 1,6-diisocyanato-, homopolymer
n-Butyl acetate
p-toluenesulphonyl isocyanate
Hexamethylene-di-isocyanate

· Hazard statements

H226 Flammable liquid and vapour.
H317 May cause an allergic skin reaction.
H336 May cause drowsiness or dizziness.

· 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/sparks/open flames/hot surfaces. - No smoking.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P302+P352 IF ON SKIN: Wash with plenty of water.
P312 Call a POISON CENTER/doctor if you feel unwell.

· Additional information:
EUH066 Repeated exposure may cause skin dryness or cracking.
Contains isocyanates. May produce an allergic reaction.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· PBT: Not applicable.
· vPvB: Not applicable.

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SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterization: Mixtures

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

· Dangerous components:

| | | |
|---|---|-----------|
| CAS: 28182-81-2 NLP: 500-060-2 | Hexane, 1,6-diisocyanato-, homopolymer ☒ Xi R43 ⚠ Skin Sens. 1, H317 | 50 - 100% |
| CAS: 123-86-4 EINECS: 204-658-1 Index number: 607-025-00-1 | n-Butyl acetate R10-66-67 ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336 | 25 - 50% |
| CAS: 4083-64-1 EINECS: 223-810-8 Index number: 615-012-00-7 | p-toluenesulphonyl isocyanate ☒ Xi R36/37/38; ☒ Xn R42 R14 ⚠ Resp. Sens. 1, H334; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 | ≤2.5% |

(Contd. on page 3)

GB



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

Version number 1

Revision: 07.06.2014

Trade name: **VOC Hardener 10/15 15/20 20/25 25/30**

(Contd. of page 2)

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** Immediately remove any clothing contaminated by the product.
- **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor.
In case of unconsciousness bring patient into stable side position for transport.
- **After skin contact:**
Instantly wash with water and soap and rinse thoroughly.
Consult a doctor for safety reasons.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Seek immediate medical advice.
- **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** symptomatic treatment

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
Carbon dioxide (CO₂), extinguishing powder or water spray/fog. Fight larger fires with water spray/fog or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **5.2 Special hazards arising from the substance or mixture**
Nitrogen oxides (NO_x)
Carbon monoxide (CO) and Carbon dioxide (CO₂)
Can form explosive vapour-air mixtures.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information**
Cool endangered containers with water spray jet.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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 all ignition sources.
Use breathing protection against the effects of fumes/dust/aerosol.
Avoid contact with skin and eyes.
- **6.2 Environmental precautions:** Do not allow to enter drainage system, surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the material collected according to regulations.
- **6.4 Reference to other sections**
See Section 8 for information on personal protection equipment.

GB

(Contd. on page 4)



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

Version number 1

Revision: 07.06.2014

Trade name: VOC Hardener 10/15 15/20 20/25 25/30

(Contd. of page 3)

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

- Ensure good ventilation/exhaustion at the workplace.
- Ensure good interior ventilation, especially at floor level (fumes are heavier than air).
- Restrict the quantity stored in the work place.
- Use only in well ventilated areas.
- Do not breathe vapour/spray.
- Avoid contact with skin and eyes.
- Make sure that all applicable workplace limits are observed.

· **Information about protection against explosions and fires:**

- Fumes can combine with air to form an explosive mixture.
- Flammable fume/air mixtures may be formed in empty containers.
- Keep ignition sources away - Do not smoke.
- Protect against electrostatic charges.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage**

· **Requirements to be met by storerooms and containers:**

- Observe all local and national regulations for storage of water polluting products.
- Observe regulations for storage of flammable liquids.

· **Information about storage in one common storage facility:**

- Observe regulations for storage of flammable liquids.

· **Further information about storage conditions:**

- Store container in a well ventilated position.
- Store in cool, dry conditions in well sealed containers.
- Protect from heat and direct sunlight.

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

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SECTION 8: Exposure controls/personal protection

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

· **8.1 Control parameters**

· **Components with critical values that require monitoring at the workplace:**

123-86-4 n-Butyl acetate

| | |
|---------------------|---|
| WEL (Great Britain) | Short-term value: 966 mg/m ³ , 200 ppm |
| | Long-term value: 724 mg/m ³ , 150 ppm |

- **Additional information:** The lists that were valid during the compilation were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment**

· **General protective and hygienic measures**

- Keep away from foodstuffs, beverages and food.
- Instantly remove any contaminated garments.
- Do not eat, drink or smoke while working.
- Do not inhale gases / fumes / aerosols.
- Avoid contact with the eyes and skin.
- Wash hands during breaks and at the end of the work.

· **Breathing equipment:**

- If all workplace limits are observed and good ventilation is ensured, no special precautions necessary.

· **Protection of hands:**

- Protective gloves
- To avoid skin problems reduce the wearing of gloves to the required minimum.
- Check the permeability prior to each renewed use of the glove.

(Contd. on page 5)

GB



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

Version number 1

Revision: 07.06.2014

Trade name: VOC Hardener 10/15 15/20 20/25 25/30

(Contd. of page 4)

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

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 protection:** Tightly sealed safety glasses

· **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

| | |
|--|--|
| · 9.1 Information on basic physical and chemical properties | |
| · General Information | |
| · Appearance: | |
| Form: | liquid |
| Colour: | colourless |
| · Smell: | characteristic |
| · Odour threshold: | not determined |
| · pH-value: | not applicable |
| · Change in condition | |
| Melting point/Melting range: | not determined |
| Boiling point/Boiling range: | not determined |
| · Flash point: | >23 °C |
| · Inflammability (solid, gaseous) | not applicable |
| · Ignition temperature: | 370 °C |
| · Decomposition temperature: | not determined |
| · Self-inflammability: | Product is not selfigniting. |
| · Danger of explosion: | Product is not explosive. However, formation of explosive air/vapour mixtures is possible. |
| · Critical values for explosion: | |
| Lower: | 2.1 Vol % |
| Upper: | 11.5 Vol % |
| · Oxidizing properties | none |
| · Vapor pressure: | not determined |
| · Density at 20 °C: | ~ 1 g/cm ³ |
| · Relative density at 20 °C | ~ 1 g/cm ³ (H ₂ O = 1) |
| · Vapour density (AIR = 1): | not determined |
| · Evaporation rate | not determined |
| · Solubility in / Miscibility with | |
| Water: | not miscible or difficult to mix |
| · Partition coefficient (n-octanol/water): not determined | |

(Contd. on page 6)

GB



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

Version number 1

Revision: 07.06.2014

Trade name: **VOC Hardener 10/15 15/20 20/25 25/30**

(Contd. of page 5)

| | |
|--------------------------------|---|
| · Viscosity: | |
| <i>dynamic:</i> | <i>not determined</i> |
| <i>kinematic at 20 °C:</i> | <i>< 40 s (ISO 6 mm)</i> |
| · 9.2 Other information | <i>No further relevant information available.</i> |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** see 10.3
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
Avoid impact, friction, heat, sparks, electrostatic charges.
- **10.3 Possibility of hazardous reactions**
Flammable vapour-air mixtures may develop.
Used empty containers may contain product gases which form explosive mixtures with air.
- **10.4 Conditions to avoid** *No further relevant information available.*
- **10.5 Incompatible materials:**
Strong oxidizing agents
Alkaline materials
Amines
- **10.6 Hazardous decomposition products:**
Nitrogen oxides (NO_x)
Carbon monoxide (CO) and Carbon dioxide (CO₂)

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

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

| | | |
|--|-----------------|------------------------------|
| 28182-81-2 Hexane, 1,6-diisocyanato-, homopolymer | | |
| <i>Oral</i> | <i>LD50</i> | <i>> 2000 mg/kg (rat)</i> |
| <i>Dermal</i> | <i>LD50</i> | <i>> 2000 mg/kg (rat)</i> |
| 123-86-4 n-Butyl acetate | | |
| <i>Oral</i> | <i>LD50</i> | <i>13100 mg/kg (rat)</i> |
| <i>Dermal</i> | <i>LD50</i> | <i>14100 mg/kg (rabbit)</i> |
| <i>Inhalative</i> | <i>LC50/4 h</i> | <i>> 21 mg/l (rat)</i> |

- **Primary irritant effect:**
- **on the skin:** *Slightly irritating*
- **on the eye:** *Short time, reversible irritating effect.*
- **Subacute to chronic toxicity:** *not classified*
- **Additional toxicological information:**
Inhalation of concentrated vapours may lead to anaesthesia-like conditions and headache, dizziness, etc.
Sensitising
- **Sensitisation** *May cause sensitisation by skin contact.*
- **Repeated dose toxicity** *not classified*
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
According to present knowledge no CMR-effects known.

GB

(Contd. on page 7)



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

Version number 1

Revision: 07.06.2014

Trade name: VOC Hardener 10/15 15/20 20/25 25/30

(Contd. of page 6)

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

123-86-4 n-Butyl acetate

| | |
|-----------|--|
| EC50 | 959 mg/l (pseudomonas putida) (EC10) |
| EC50/24 h | 72.8 mg/l (water flea (daphnia magna)) |
| IC50/72 h | 674.7 mg/l (algae (Scenedesmus subspicatus)) |
| LC50/96 h | 62 mg/l (leuciscus idus) |
| | 100 mg/l (bluegill (lepomis macrochirus)) |
| | 18 mg/l (fathead minnow (pimephales promelas)) |
| NOEC/21 d | 23 mg/l (water flea (daphnia magna)) |

· **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.

· **Additional ecological information:**

· **General notes:** Water hazard class 2 (Self-assessment): hazardous for water

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

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

· **European waste catalogue:**

Waste disposal key numbers from EWC have to be assigned depending on origin and processing.

· **Uncleaned packagings:**

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

SECTION 14: Transport information

· **14.1 UN-Number**

· **ADR, IMDG, IATA**

UN1263

· **14.2 UN proper shipping name**

· **ADR**

UN1263 PAINT RELATED MATERIAL, Special provision 640E

· **IMDG, IATA**

PAINT RELATED MATERIAL

· **14.3 Transport hazard class(es)**

· **ADR**



· **Class**


3 (F1) Flammable liquids.

(Contd. on page 8)

GB

Trade name: **VOC Hardener 10/15 15/20 20/25 25/30**

(Contd. of page 7)

| | |
|---|--|
| · Label | 3 |
| · IMDG, IATA | |
|  | |
| · Class | 3 Flammable liquids. |
| · Label | 3 |
| · 14.4 Packing group | |
| · ADR, IMDG, IATA | III |
| · 14.5 Environmental hazards: | |
| · Marine pollutant: | NO |
| · 14.6 Special precautions for user | Warning: Flammable liquids. |
| · Kemler Number: | 30 |
| · EMS Number: | F-E,S-E |
| · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | Transport by post may be prohibited or restricted. |
| · ADR | |
| · Excepted quantities (EQ): | E1 |
| · Limited quantities (LQ): | 5L |
| · Transport category: | 3 |
| · Tunnel restriction code: | D/E |
| · UN "Model Regulation": | UN1263, PAINT RELATED MATERIAL, Special provision 640E, 3, III |

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SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Information about limitation of use:** Employment restrictions concerning young persons must be observed.
- **Decree to be applied in case of technical fault:**
Quantity limits according to "EC Seveso directive" should be observed.
- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

The(se) R- resp. H-phrase(s) are those of the ingredient(s) and do(es) not necessarily represent the classification of the preparation/mixture.

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

(Contd. on page 9)

GB



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

Version number 1

Revision: 07.06.2014

Trade name: VOC Hardener 10/15 15/20 20/25 25/30

(Contd. of page 8)

- H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 R10 Flammable.
 R14 Reacts violently with water.
 R36/37/38 Irritating to eyes, respiratory system and skin.
 R42 May cause sensitisation by inhalation.
 R43 May cause sensitisation by skin contact.
 R66 Repeated exposure may cause skin dryness or cracking.
 R67 Vapours may cause drowsiness and dizziness.

· **Department issuing MSDS:**

Sprayguns Direct Limited Morleys
 Group 250 Osmaston Road, Derby
 DE23 8LB, England

Phone: +44 1332 611893

Fax: +44 1332 331611

· **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 Harmonized 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
 Flam. Liq. 3: Flammable liquids, Hazard Category 3
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
 Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

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

GB