



Safety data sheet

according to 1907/2006/EC, Article 31

Version number 1

MSDS1437
Revision: 07.06.2014

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 Filler-Hardener standard / slow
- **Article number(s):** 80805 / 80810
- **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:** Hardening agent / Curing agent
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer / Supplier:**
Quartz Refinish Limited, Morleys Group
250 Osmaston Road, Derby
DE23 8LB, England
- **Phone:** +44 1332 611893
Fax: +44 1332 331611
- **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

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**



Xi; Irritant

R36: Irritating to eyes.



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.

Long or repeated contact with skin may cause dermatitis due to the degreasing effect of the solvent.

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.

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· Hazard pictograms



GHS02 GHS07

· Signal word Warning

· Hazard-determining components of labelling:

Hexane, 1,6-diisocyanato-, homopolymer

n-Butyl acetate

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.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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 soap and water.

· 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.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterization: Mixtures

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

· Dangerous components:

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: 28182-81-2 NLP: 500-060-2	Hexane, 1,6-diisocyanato-, homopolymer Xi R43 Skin Sens. 1, H317	25-50%
CAS: 108-65-6 EINECS: 203-603-9 Index number: 607-195-00-7	1-Methoxy-2-propyl acetate R10 Flam. Liq. 3, H226	10-25%

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CAS: 822-06-0 EINECS: 212-485-8 Index number: 615-011-00-1	Hexamethylene-di-isocyanate T 23; Xn R42/43; Xi R36/37/38 Acute Tox. 3, H331; Resp. Sens. 1, H334; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	< 2.5%
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· **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 and call for doctor for safety reasons.
In case of unconsciousness bring patient into stable side position for transport.
- **After skin contact:**
Instantly wash with water and soap and rinse thoroughly.
After prolonged skin contact defatting of skin possible, use skin protecting agent after prolonged skin contact.
If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
If swallowed, seek medical advice immediately and show this container or label.
- **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.
If without risk possible, move drums with material away from dangerous area.

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.
Do not breathe vapour.
Avoid contact with skin and eyes.
- **6.2 Environmental precautions:**
Do not allow to enter drainage system, surface or ground water.
Prevent material from reaching sewage system, holes and cellars.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.

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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.

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).

Use only in well ventilated areas.

Avoid contact with skin and eyes.

Do not breathe vapour/spray.

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 regulations for storage of flammable liquids.

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

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
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108-65-6 1-Methoxy-2-propyl acetate

WEL (Great Britain)	Short-term value: 548 mg/m ³ , 100 ppm Long-term value: 274 mg/m ³ , 50 ppm Sk
IOELV (European Union)	Short-term value: 550 mg/m ³ , 100 ppm Long-term value: 275 mg/m ³ , 50 ppm Skin

822-06-0 Hexamethylene-di-isocyanate

WEL (Great Britain)	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
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· DNELs		
108-65-6 1-Methoxy-2-propyl acetate		
Oral	DNEL long-term exposure - systemic effects	1.67 mg/kg bw/d (general population)
Dermal	DNEL long-term exposure - systemic effects	54.8 mg/kg bw/d (general population) 153.5 mg/kg bw/d (worker)
Inhalative	DNEL long-term exposure - systemic effects	33 mg/m ³ (general population) 275 mg/m ³ (worker)
· PNECs		
108-65-6 1-Methoxy-2-propyl acetate		
PNEC	0.635 mg/l (aqua (freshwater)) 6.35 mg/l (aqua (intermittent releases)) 0.0635 mg/l (aqua (marine water)) 3.29 mg/kg (sediment (freshwater)) 0.329 mg/kg (sediment (marine water)) 0.29 mg/kg (soil) 100 mg/l (STP (sewage treatment plant))	

· **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.

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**

Protective gloves should be replaced at first signs of wear.

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

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Body protection must be chosen depending on activity and possible exposure.

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:	315 °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:	1.5 Vol %
Upper:	10.8 Vol %
· Oxidizing properties	none
· Vapor pressure:	not determined
· Density at 20 °C:	~ 1 g/cm ³
· Relative density at 20 °C	~ 1 (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
· Viscosity:	
dynamic:	not determined
kinematic at 20 °C:	< 40 s (ISO 6 mm)
· 9.2 Other information	No further relevant information available.

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.

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- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Strong oxidizing agents
- **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:**

123-86-4 n-Butyl acetate

Oral	LD50	13100 mg/kg (rat)
Dermal	LD50	14100 mg/kg (rabbit)
Inhalative	LC50/4 h	> 21 mg/l (rat)

28182-81-2 Hexane, 1,6-diisocyanato-, homopolymer

Oral	LD50	> 2000 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rat)

108-65-6 1-Methoxy-2-propyl acetate

Oral	LD50	8532 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rabbit)
Inhalative	LC50/4 h	35.7 mg/l (rat)

822-06-0 Hexamethylene-di-isocyanate

Oral	LD50	1050 mg/kg (rat)
Inhalative	LC50/4 h	0.124 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** Long or repeated contact can defat skin and may cause dermatitis.
- **on the eye:** Irritant effect
- **Subacute to chronic toxicity:** not classified
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:
Irritant
Sensitising
Vapours have anaesthetic effect.
- **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.

SECTION 12: Ecological information

- **12.1 Toxicity**

· **Aquatic toxicity:**

123-86-4 n-Butyl acetate

EC50	959 mg/l (<i>pseudomonas putida</i>) (EC10)
EC50/24 h	72.8 mg/l (water flea (<i>daphnia magna</i>))
IC50/72 h	674.7 mg/l (algae (<i>Scenedesmus subspicatus</i>))
LC50/96 h	62 mg/l (<i>leuciscus idus</i>) 100 mg/l (bluegill (<i>lepomis macrochirus</i>))

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NOEC/21 d	18 mg/l (fathead minnow (<i>pimephales promelas</i>)) 23 mg/l (water flea (<i>daphnia magna</i>))
108-65-6 1-Methoxy-2-propyl acetate	
IC50/96 h	100 - 180 mg/l (rainbow trout (<i>oncorhynchus mykiss</i>)) (OECD 203) IUCLID
LC50/96 h	100-180 mg/l (red killifish (<i>Oryzias latipes</i>)) (OECD 203) ECHA-Reg.-Dossier (1987-09-21)
822-06-0 Hexamethylene-di-isocyanate	
EC0/48 h	≥ 89.1 mg/l (water flea (<i>daphnia magna</i>))
EC50/72 h	> 77.4 mg/l (algae (<i>Scenedesmus subspicatus</i>))
LC0/96 h	≥ 82.8 mg/l (zebra fish (<i>danio rerio</i>))

- **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.

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· 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

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 pregnant and lactating women must be observed.
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.

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- H331 Toxic if inhaled.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 R10 Flammable.
 R23 Toxic by inhalation.
 R36/37/38 Irritating to eyes, respiratory system and skin.
 R42/43 May cause sensitisation by inhalation and skin contact.
 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)
 DNEL: Derived No-Effect Level (REACH)
 PNEC: Predicted No-Effect Concentration (REACH)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 Flam. Liq. 3: Flammable liquids, Hazard Category 3
 Acute Tox. 3: Acute toxicity, 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.**

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