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

MSDS5402

V - 1

Revision: 23.05.2013

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

· **1.1 Product identifier**

· **Trade name: Light Putty**

· **Article number(s):** 46120

· **1.2 Relevant identified uses of the substance or mixture and uses advised against** Not determined

· **Application of the substance / the mixture** Knife filler/ Surfacer

· **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

· **Further information obtainable from:** Sprayguns Direct Limited, Morleys Group

· **1.4 Emergency telephone number:** +44 1332 611893

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.

GHS08 health hazard

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure. Route of exposure: Inhalative.

GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

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· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Xn; Harmful

R20-48/20: Harmful by inhalation. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.

R10: Flammable.

· **Information concerning particular hazards for human and environment:**
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.

· **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· **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 GHS08

· **Signal word** Danger

· **Hazard-determining components of labelling:**
styrene

· **Hazard statements**
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H372 Causes damage to organs through prolonged or repeated exposure. Route of exposure: Inhalative.

· **Precautionary statements**

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P260	Do not breathe mist/vapours/spray.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/attention if you feel unwell.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

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· ***2.3 Other hazards***
· ***Results of PBT and vPvB assessment***
· ***PBT:*** *Not applicable.*
· ***vPvB:*** *Not applicable.*

3 Composition/information on ingredients

· ***3.2 Chemical characterization: Mixtures***
· ***Description:*** *Mixture of substances listed below with nonhazardous additions.*

· **Dangerous components:**		
CAS: 100-42-5 EINECS: 202-851-5 Reg.nr.: 01-2119457861-32	styrene Xn R20-48/20-65; Xi R36/37/38 R10 Flam. Liq. 3, H226; STOT RE 1, H372; Asp. Tox. 1, H304; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	10-25%

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

4 First aid measures

· ***4.1 Description of first aid measures***
· ***General information:***
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Personal protection for the First Aider.
Take affected persons out of danger area and lay down.
In case of irregular breathing or respiratory arrest provide artificial respiration.
Immediately remove any clothing soiled by the product.
· ***After inhalation:***
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
· ***After skin contact:***
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
· ***After eye contact:***
Rinse opened eye for several minutes under running water. Then consult a doctor.
Call a doctor immediately.
· ***After swallowing:*** *Do not induce vomiting; call for medical help immediately.*
· ***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.

5 Firefighting measures

· ***5.1 Extinguishing media***
· ***Suitable extinguishing agents:*** *CO2, powder or water spray. Fight larger fires with water spray.*
· ***For safety reasons unsuitable extinguishing agents:*** *Water with full jet*
· ***5.2 Special hazards arising from the substance or mixture***
Formation of toxic gases is possible during heating or in case of fire.

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· **5.3 Advice for firefighters**
· **Protective equipment:**
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
· **Additional information**
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Avoid contact with the eyes and skin.
Ensure adequate ventilation
Do not inhale gases / fumes / aerosols.
Keep away from ignition sources.
· **6.2 Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
· **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Do not flush with water or aqueous cleansing agents
· **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **7.1 Precautions for safe handling**
Keep receptacles tightly sealed.
Ensure good ventilation/exhaustion at the workplace.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
· **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Fumes can combine with air to form an explosive mixture.
Protect against electrostatic charges.
Use explosion-proof apparatus / fittings and spark-proof tools.
Ground/bond container and receiving equipment.

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
· **Information about storage in one common storage facility:**
Store away from oxidizing agents.
Store away from foodstuffs.
· **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Store receptacle in a well ventilated area.
Protect from heat and direct sunlight.
· **Recommended storage temperature:** < 30 °C

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

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:***	
100-42-5 styrene	
WEL (Great Britain)	*Short-term value: 1080 mg/m³, 250 ppm* *Long-term value: 430 mg/m³, 100 ppm*

· ***DNELs***		
100-42-5 styrene		
Oral	*Long-term exposure - systemic effects*	*2.1 mg/kg bw/day (general population)*
Dermal	*Long-term exposure - systemic effects*	*343 mg/kg bw/day (general population)*
		406 mg/kg bw/day (worker)
Inhalative	*Acute/short-term exposure - local effects*	*182.75 mg/m³ (general population)*
		306 mg/m³ (worker)
	Acute/short-term exposure - systemic effects	*174.25 mg/m³ (general population)*
		289 mg/m³ (worker)
	Long-term exposure - systemic effects	*10.2 mg/m³ (general population)*
		85 mg/m³ (worker)

· ***PNECs***	
100-42-5 styrene	
PNEC STP	*5 mg/l (-)*
PNEC aqua	*0.028 mg/l (freshwater)*
	0.0028 mg/l (marine water)
	0.04 mg/l (intermittent releases)
PNEC sediment	*0.614 mg/kg (freshwater)*
	0.0614 mg/kg (marine water)
PNEC soil	*0.2 mg/kg (soil dw)*

· ***Additional information:*** *The lists valid during the making were used as basis.*

· ***8.2 Exposure controls***
· ***Personal protective equipment:***
· ***General protective and hygienic measures:***
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
Wash hands before breaks and at the end of work.
Keep away from foodstuffs, beverages and feed.
Do not eat, drink, smoke or sniff while working.
Store protective clothing separately.
Immediately remove all soiled and contaminated clothing
Take off contaminated clothing and wash before reuse.
Use skin protection cream for skin protection.
· ***Respiratory protection:***
Ensure good ventilation/exhaustion at the workplace.
Adhere to the workplace limit values and / or other threshold values.

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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.
Filter A/P2

· ***Protection of hands:***

Protective gloves

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
Check the permeability prior to each anewed use of the glove.
Preventive skin protection by use of skin-protecting agents is recommended.

· ***Material of gloves***
Fluorocarbon rubber (Viton)
Empfohlene Materialstärke: ≥ 0.7 mm
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***
Value for the permeation: Level ≤ 6 (≥ 480 min)
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· ***Not suitable are gloves made of the following materials:***
Natural rubber, NR
Chloroprene rubber, CR
Nitrile rubber, NBR
Butyl rubber, BR
PVC gloves

· ***Eye protection:***

Tightly sealed goggles

· ***Body protection:*** *Protective work clothing*

9 Physical and chemical properties

· ***9.1 Information on basic physical and chemical properties***	
· ***General Information***	
· ***Appearance:***	
Form:	*Pasty*
Colour:	*Beige*
· ***Odour:***	*Characteristic*
· ***Change in condition***	
Melting point/Melting range:	*Undetermined.*
Boiling point/Boiling range:	*145 °C*
· ***Flash point:***	*31 °C*

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· **Ignition temperature:**	480 °C
· **Danger of explosion:**	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· **Explosion limits:**	
Lower:	1.2 Vol %
Upper:	8.9 Vol %
· **Vapour pressure at 20 °C:**	6 hPa
· **Density at 20 °C:**	1.3 g/cm³
· **Solubility in / Miscibility with water:**	Not miscible or difficult to mix.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
· **9.2 Other information**	No further relevant information available.

10 Stability and reactivity

· **10.1 Reactivity** No decomposition if used according to specifications.
· **10.2 Chemical stability** No decomposition if used and stored according to specifications.
· **10.3 Possibility of hazardous reactions**
Reacts with peroxides and other radical forming substances.
Exothermic polymerization.
· **10.4 Conditions to avoid**
Protect from heat.
Avoid naked flames, sparks, other ignition sources and sunlight.
· **10.5 Incompatible materials:** No further relevant information available.
· **10.6 Hazardous decomposition products:**
Formation of toxic gases is possible during heating or in case of fire.

11 Toxicological information

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

· **LD/LC50 values relevant for classification:**		
100-42-5 styrene		
Oral	LD50	5000 mg/kg (rat)
Dermal	LD 50	>2000 mg/kg (rat) (OECD 402)
Inhalative	LC50 /4h	11.8 mg/l (rat)

· **Primary irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:** Irritating effect.

· **Subacute to chronic toxicity:**		
100-42-5 styrene		
Inhalative	NOAEL (subacute)	0.85 mg/l (rat) (13w, 6h/day, Vapour)
	NOAEL (subchronic)	0.8 mg/l (rat) (OECD 453, 2a, 6h/day, Vapour)

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· ***Additional toxicological information:***
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Irritant
· ***Sensitisation*** *No sensitizing effects known.*
· ***CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)***

· **Carcinogenicity**		
100-42-5 styrene		
Inhalative	NOAEL (carcinogenicity)	4.34 mg/l (rat) (OECD 453, 2a, 6h/day, 5d/week, Vapour)

· **Reproductive toxicity/Fertility**		
100-42-5 styrene		
Inhalative	NOAEL (fertility)	0.65 mg/l (rat, parents) (OECD 416, Vapour) 0.22 mg/l (rat, F2) (OECD 416, Vapour) 2.2 mg/l (rat) (OECD 416, Parents, Vapour)

· **Reproductive toxicity/Teratogenicity**		
100-42-5 styrene		
Inhalative	NOAEL (developmental toxicity)	2.6 mg/l (rat)
	NOAEL (teratogenicity)	2.6 mg/l (rat)
	LOAEL (maternally)	1.3 mg/l (rat)

12 Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**	
100-42-5 styrene	
EC10/96h	0.28 mg/l (Pseudokirchneriella subcapitata) (EPA OTS 797.1050)
EC50/0.5h	≈ 500 mg/l (activated slugde) (OECD 209)
EC50/48h	4.7 mg/l (daphnia magna) (OECD 202)
EC50/72h	4.9 mg/l (Pseudokirchneriella subcapitata) (EPA OTS 797.1050)
LC50/96h	4.02 mg/l (pimephales promelas)
NOEC	1.01 mg/l (daphnia magna) (OECD-211 21d)

· **12.2 Persistence and degradability**	
100-42-5 styrene	
Biodegradation	70.9 % (activated slugde) (ISO DIN 9408, 28d, aerob)

· **12.3 Bioaccumulative potential**	
100-42-5 styrene	
BCF	74 (-) (calculated) 13.5 (fish)
log Kow	2.95 (-)

· **Behaviour in environmental systems:**

· **12.4 Mobility in soil**	
100-42-5 styrene	
Koc	352 (-)
log Koc	2.55 (-)

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· ***Additional ecological information:***
· ***General notes:***
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.
· ***12.5 Results of PBT and vPvB assessment***
· ***PBT:*** *Not applicable.*
· ***vPvB:*** *Not applicable.*
· ***12.6 Other adverse effects*** *No further relevant information available.*

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.
· ***Waste disposal key:***
The waste codes given above are to be considered recommendations; because of regional and industrial sector specific features, application of different waste codes is possible.

· ***European waste catalogue***	
*07 02 08**	*other still bottoms and reaction residues*

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

14 Transport information

· ***14.1 UN-Number***	
· ***ADR, IMDG, IATA***	*UN1866*
· ***14.2 UN proper shipping name***	
· ***ADR***	*1866 RESIN SOLUTION*
· ***IMDG, IATA***	*RESIN SOLUTION*
· ***14.3 Transport hazard class(es)***	
· ***ADR, IMDG, IATA***	
· ***Class***	*3 Flammable liquids.*
· ***Label***	*3*
· ***14.4 Packing group***	
· ***ADR, IMDG, IATA***	*III*
· ***14.5 Environmental hazards:***	*Not applicable.*
· ***14.6 Special precautions for user***	*Warning: Flammable liquids.*
· ***EMS Number:***	*F-E,S-D*
· ***14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code***	*Not applicable.*

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· **Transport/Additional information:**	
· **ADR**	
· **Limited quantities (LQ)**	5L
· **Transport category**	3
· **Tunnel restriction code**	D/E
· **Remarks:**	ADR 2.2.3.1.5
· **IMDG**	
· **Remarks:**	IMDG-Code 2.3.2.5

15 Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **European regulations**
· **Directive 2004/42/EC** 2004/42/IIB (b) (250) <250

· **National regulations:**

· **Information about limitation of use:**
Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.

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

16 Other information

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

· **Relevant phrases**
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H372 Causes damage to organs through prolonged or repeated exposure. Route of exposure: Inhalative.

R10 Flammable.
R20 Harmful by inhalation.
R36/37/38 Irritating to eyes, respiratory system and skin.
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R65 Harmful: may cause lung damage if swallowed.

· **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:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organization
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

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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. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
Asp. Tox. 1: Aspiration hazard, Hazard Category 1