

## LASAL 201 - Rofin Laser mixture

**8451**

### 1 IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

**Trade name** : LASAL 201 - Rofin Laser mixture  
**Company identification** : Energas Ltd.  
Westmorland Street, Hull HU2 0HX,  
United Kingdom  
**Emergency phone nr** : 01482 329333

### 2 COMPOSITION / INFORMATION ON INGREDIENTS

**Substance / Preparation** : Preparation.  
**Components** : This product is hazardous.

Substance name	Contents	CAS No	EC No	Annex No	Classification
Carbon monoxide	: Between 5 and 6.6 %	630-08-0	211-128-3	006-001-00-2	F+; R12 Repr. Cat. 1; R61 T; R23-48/23

### 3 HAZARDS IDENTIFICATION

**Hazards identification** : Toxic by inhalation.  
May cause harm to the unborn child.  
Compressed gas.

### 4 FIRST AID MEASURES

**First aid measures**

- **Inhalation** : Toxic by inhalation.  
Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
- **Ingestion** : Ingestion is not considered a potential route of exposure.

### 5 FIRE-FIGHTING MEASURES

**Flammable class** : Non flammable.  
**Specific hazards** : Exposure to fire may cause containers to rupture/explode.  
**Hazardous combustion products** : Toxic gases.  
**Extinguishing media**

- **Suitable extinguishing media** : All known extinguishants can be used.

**Specific methods** : If possible, stop flow of product.  
Move away from the container and cool with water from a protected position.

**Special protective equipment for fire fighters** : Use self-contained breathing apparatus.

### 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions** : Evacuate area.  
Ensure adequate air ventilation.  
Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.

**Environmental precautions** : Try to stop release.

**Clean up methods** : Ventilate area.

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### 7 HANDLING AND STORAGE

- Storage** : Keep container below 50°C in a well ventilated place.
- Handling** : Avoid exposure, obtain special instructions before use.  
Open valve slowly to avoid pressure shock.  
Suck back of water into the container must be prevented.  
Do not allow backfeed into the container.  
Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.  
Refer to supplier's container handling instructions.

### 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

- Personal protection** : Do not smoke while handling product.  
Ensure adequate ventilation.  
Keep self contained breathing apparatus readily available for emergency use.
- Occupational Exposure Limits** : Carbon monoxide : TLV© -TWA [ppm] : 25  
Carbon monoxide : OEL (UK)-LTEL [ppm] : 30  
Carbon monoxide : OEL (UK)-STEL [ppm] : 200  
Carbon monoxide : VME - France [ppm] : 50  
Carbon monoxide : MAK - Germany [ppm] : 30  
Carbon dioxide : TLV© -TWA [ppm] : 5000  
Carbon dioxide : TLV© -STEL [ppm] : 30000  
Carbon dioxide : OEL (UK)-LTEL [ppm] : 5000  
Carbon dioxide : OEL (UK)-STEL [ppm] : 15000  
Carbon dioxide : MAK - Germany [ppm] : 5000

### 9 PHYSICAL AND CHEMICAL PROPERTIES

- Physical state at 20 °C** : Compressed gas.
- Colour** : Colourless.
- Odour** : None.
- Relative density, gas (air=1)** : Lighter or similar to air.
- Solubility in water [mg/l]** : No reliable data available.

### 10 STABILITY AND REACTIVITY

- Stability and reactivity** : Stable under normal conditions.

### 11 TOXICOLOGICAL INFORMATION

- Toxicity information** : Toxic by inhalation.  
May impair fertility and cause harm to the unborn child.
- Toxic for reproduction : unborn child** : Category 1 : Substances known to cause developmental toxicity in humans.

### 12 ECOLOGICAL INFORMATION

- Ecological effects information** : No known ecological damage caused by this product.
- Effect on ozone layer** : None.

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### 13 DISPOSAL CONSIDERATIONS

- General** : Do not discharge into any place where its accumulation could be dangerous.  
Avoid discharge to atmosphere.  
Contact supplier if guidance is required.
- Disposal method** : Consult supplier for specific recommendations.

### 14 TRANSPORT INFORMATION

- UN No.** : 1956  
**H.I. nr** : 20  
**ADR/RID**  
**Proper shipping name** : COMPRESSED GAS, N.O.S. (Helium, Carbon monoxide)  
**- ADR Class** : 2  
**- ADR/RID Classification code** : 1 A  
**Labelling ADR** : Label 2.2 : Non flammable, non toxic gas.  
**Other transport information** : Avoid transport on vehicles where the load space is not separated from the driver's compartment.  
Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency.  
Before transporting product containers :  
- Ensure that containers are firmly secured.  
- Ensure cylinder valve is closed and not leaking.  
- Ensure valve outlet cap nut or plug (where provided) is correctly fitted.  
- Ensure valve protection device (where provided) is correctly fitted.  
- Ensure there is adequate ventilation.  
- Compliance with applicable regulations.

### 15 REGULATORY INFORMATION

- EC Classification** : Repr. Cat. 1; R61  
T; R23-R48/23
- EC Labelling**  
**Symbol(s)** : T : Toxic  
**R Phrase(s)** : R23 : Toxic by inhalation.  
R48/23 : Toxic : danger of serious damage to health by prolonged exposure through inhalation.  
R61 : May cause harm to the unborn child.
- S Phrase(s)** : S9 : Keep container in a well-ventilated place.  
S36 : Wear suitable protective clothing.  
S45 : In case of accident or if you feel unwell, seek medical advice immediately ( show the label when possible).  
S53 : Avoid exposure - obtain special instructions before use.

### 16 OTHER INFORMATION

- Training advice** : Users of breathing apparatus must be trained.  
Ensure operators understand the toxicity hazard.  
Receptacle under pressure.  
Ensure all national/local regulations are observed.

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