

Lasermixes 1,2,3,4 & 5

PRODUCT: LASERMIX 1,2,3,4 & 5 MSDS NR: 300-10-0082 BOC VERSION: 1.01 DATE: 20/07/2000

1 IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND OF THE COMPANY

Product name	Lasermix 1,2,3,4,5
Company identification	see heading and/or footer
Emergency phone Nos	see heading and/or footer

2 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/ Preparation	Preparation
Components/ Impurities	Lasermix 1: 4.5%CO ₂ /13.5%N ₂ /He Lasermix 2: 9%CO ₂ /13.5%N ₂ /He Lasermix 3: 12%CO ₂ /12%N ₂ /He Lasermix 4: 5%CO ₂ /40%He/N ₂ Lasermix 5: 3.4%CO ₂ /15.6% N ₂ /81%He
EEC Nr (from EINECS)	Not applicable for preparations

3 HAZARDS IDENTIFICATION

Hazards identification	In high concentrations may cause asphyxiation. Compressed gas.
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4 FIRST AID MEASURES

Inhalation	Low concentrations of CO ₂ cause increased respiration and headache. In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. 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

Specific hazards	Exposure to fire may cause containers to rupture/explode. Non flammable.
Hazardous combustion products	None.
Suitable extinguishing media	All known extinguishants can be used.
Specific methods	If possible, stop flow of product. Move away from container and cool with water from a protected position.
Special protective equipment for fire fighters	In confined space use self-contained breathing apparatus.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions	Evacuate area. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation.
Environmental precautions	Try to stop release.
Clean up methods	Ventilate area.

7 HANDLING AND STORAGE

Handling and storage	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 suppliers container handling instructions. Keep container below 50°C in a well ventilated area.
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8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit value for country	UK: CO ₂ -STEL: 15000ppm; LTEL: 5000ppm. (EH 40/2000)
Personal protection	Ensure adequate ventilation.

9 PHYSICAL AND CHEMICAL PROPERTIES

Relative density, gas	Lighter or similar to air
Solubility mg/l water	No reliable data available
Appearance/Colour	Colourless gas
Odour	No odour warning properties

10 STABILITY AND REACTIVITY

Stability and reactivity	Stable under normal conditions
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11 TOXICOLOGICAL INFORMATION

General	High concentrations cause rapid circulatory insufficiency. Symptoms are headache, nausea and vomiting, which may lead to unconsciousness.
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12 ECOLOGICAL INFORMATION

General	When discharged in large quantities may contribute to the greenhouse effect.
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SAFETY DATA SHEET

13 DISPOSAL CONSIDERATIONS

General Do not discharge into any place where its accumulation could be dangerous. Contact supplier if guidance is required.

14 TRANSPORT INFORMATION

UN Nr 1956
Class/Div 2.2
ADR/RID Item Nr 2, I^oA
ADR/RID Hazard Nr 20
Labelling ADR Label 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 they are firmly secured and:
 - cylinder valve is closed and not leaking.
 - valve outlet cap nut or plug (where provided) is correctly fitted.
 - valve protection device (where provided) is correctly fitted.
 - there is adequate ventilation.
 - compliance with applicable regulations.

15 REGULATORY INFORMATION

Number in Annex I of Dir 67/548 Not applicable for preparations
EC Classification Not classified as dangerous substance.
Labelling of cylinders - Symbols Label 2: non flammable non toxic gas.

16 OTHER INFORMATION

Ensure all national/local regulations are observed.
 Asphyxiant in high concentrations.
 Keep container in well ventilated place.
 Do not breathe the gas.
 Users of breathing apparatus must be trained.
 The hazard of asphyxiation is often overlooked and must be stressed during operator training.
 Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.
 Details given in this document are believed to be correct at the time of going to press.
 Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.

CYLINDER DIMENSIONS AND WEIGHTS

Product Name	Cylinder Size	Maximum Filled Pressure at 15°C (bar)	Approx. Dimensions incl. valve and guard where supplied (mm)	Approx. Full Cylinder weight (kg)
Lasermix 1	L	200	230 x 1640	73
	AV	200	180 x 680	17
	BC	200	100 x 430	6
	V	200	140 x 880	20
Lasermix 2	L	200	230 x 1640	74
	AV	200	180 x 680	17
	BC	200	100 x 430	6
	V	200	140 x 880	20
Lasermix 3	L	200	230 x 1640	74
	AV	200	180 x 680	17
	BC	200	100 x 430	6
	V	200	140 x 880	20
Lasermix 4	L	200	230 x 1640	77
Lasermix 5	L	200	230 x 1640	73

NOTE: Not all sizes of cylinders are available at all outlets.
OUTLET CONNECTION: 5/8" BSP female right hand cone recessed.



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