

Novo Nordisk A/S	DIRECTIONS FOR USE / MATERIAL SAFETY DATA SHEET according to 91/155/EEC		
	LIRAGLUTIDE, INJECTABLE		

Trade name	Liraglutide, injectable	CAS-no.	
Chemical name		EC-no.	
Novo Nordisk item no.	5-1830-10		
Company	Novo Nordisk A/S, Novo alle, DK-2880 Bagsværd, Denmark. Tel.: +45 4444 8888		
Emergency telephone no.			

COMPOSITION / INFORMATION ON CONTENTS				2
Formula/ ingredients	Concentration	Classification		CAS.no
Liraglutide	6.0 mg/ml	Not classified		-
Phenol	5.5 mg/ml	T,C; R23/24/25-34-48/20/21/22-68		108-95-2
Phosphate buffer	1.42 mg/ml	Not classified		-
Propylene glycol	14.0 mg/ml	Not classified		57-55-6
Water	ad 1.0 ml			

HAZARDS IDENTIFICATIONS		3
Potential Health Effects	<p>The product is not expected to cause any acute hazards when the product is handled according to good manufacturing practice.</p> <p>Some animal studies have shown an increase in embryonic/foetal death. The increase in early embryonic/foetal death is probably caused by maternal under-nutrition and is not expected to be relevant to humans.</p>	
Inflammatory Properties	Liraglutide, injectable is not combustible. By heating to above 300°C or when caught in a fire Liraglutide, injectable decomposes and fumes are released.	

FIRST AID MEASURES		4
After swallowing	Rinse out mouth thoroughly with water and give plenty of water to drink. Do NOT provoke vomiting. Seek medical advice if symptoms persist.	
Skin contact	Remove contaminated clothes and wash contaminated skin thoroughly with plenty of water for at least 15 minutes. Seek medical advice.	
Eyes	Rinse the eye immediately with plenty of water for at least 15 minutes with the eyelid held wide open. Seek medical advice.	
Inhalation	Go outside to breathe fresh air. Seek medical advice if respiratory symptoms occur.	

PRECAUTIONS IN CASE OF FIRE		5
May emit toxic fumes when exposed to heat or fire.		
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ACCIDENTAL RELEASE MEASURES	6
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Use personal protection means when removing the spillage. (See item 8). Absorbed by means of absorbing material (e.g. sand or vermiculite) and sent to proper destruction facilities. (See item 13). Clean up affected area.

HANDLING AND STORAGE	7
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Liraglutide, injectable must be stored in a refrigerator. Keep well closed and protected from direct sunlight.

EXPOSURE CONTROL / PERSONAL PROTECTION MEANS	8
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Limit value		Smell limit	-
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Avoid contact with eyes and skin. Wear protection gloves (e.g. disposal gloves). There must be easy access to plentiful water supply, emergency- or hand shower/eye rinsing bottle.

PHYSICAL AND CHEMICAL CHARACTERISTICS	9
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Appearance	Colourless liquid	Water-solubility	Entirely
Chemical formula	C ₁₇₂ H ₂₆₅ N ₄₃ O ₅₁ (Liraglutide)	Molecular weight	No information
Density	1,002	Freezing point	No information
Boiling point	No data	Flash point	No information
Log P octanol/water	No information	Vapour pressure	No information
pH	8,15		

STABILITY AND REACTIVE POWER	10
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Stable at normal temperatures and pressures.

TOXICOLOGICAL DATA	11
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LD ₅₀ -value, oral (rat)		LD ₅₀ -value, dermal (rat)	-
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Effects on long-term:	No	Under suspicion	Yes	Contradictory information	None
Carcinogenic	X				
Allergy (contact allergy)	X				
Allergy (inhalation allergy)	X				
Teratogenic	X				
Nerve damaging					X

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Do not allow to enter waters, waste water, or soil.

DISPOSAL CONSIDERATIONS	13
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Spillage and waste are to be collected in proper receptacles and disposed at an approved site according to existence of local regulations regarding disposal.

INFORMATION ON TRANSPORT	14
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UN.no	-	Shipping name	-
ADR	Not regulated	IMDG	Not regulated
RID	Not regulated	IATA	Not regulated

REGULATORY INFORMATION	15
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Class of risks	Not classified (in accordance with EC Directive 91/155/EEC)	Symbol:			
R-phrases:	No R-phrases				
S-phrases:	No S-phrases				

No special regulations.

OTHER INFORMATION	16
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No demand for special education, but persons handling Liraglutide, injectable must be familiar with the instructions mentioned in these Material Safety Data.