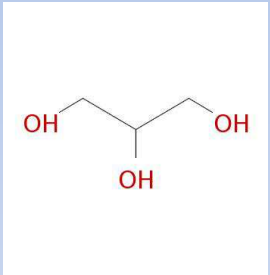
GLYCERIN

- **General Information**

Substance identification

- **INCI NAME:** GLYCERIN
- **EC Number** 200-289-5
- **CAS Number:** 56-81-5
- **Molecular formula:** C3H8O3
- **IUPAC Name:** glycerol
- **Compositions**
  - 1,2,3-propanetriol
  - Glycerol



GLYCERIN

Dati chimico fisici

- **Color: clear, water-white**
- **Odour: odourless**
- **Physical form : liquid viscous**
- **Melting point 18,17°C**
- **Boiling point: 290° C 1013hPa**
- **Vapour pressure: 0,33 Pa misurata 50° C**
- log Kow - 1.76
- **Water solubility: highly soluble to miscible in water 100% 20° C**
- **Solubility:** Glycerol is insoluble in benzene, chloroform, carbon tetrachloride, carbon disulfide, petroleum ether, oils

GLYCERIN

End point	Test	Dose	Result
Toxicokinetics, Metabolism and Distribution			Rapidamente assorbibile per ingestione Si trasforma in CO2 o reagisce con acidi grassi per formare esteri Glycerol is also one of the degradation products of glucose metabolism.
Oral Acute Toxicity	1956 Standard Acute Method no GLP	12600/15800/20000/25200 mg/Kg bW on 5 rats for dose	Letal dose 18300 mg/kg

End point	Test	Dose	Result
Inhalation Acute Toxicity	Standard acute method 1967 no GLP and TG	5 rats group , 11 mg/L for 1/2/7 h	4655 mg-min/L LCT 50
Skin Irritation	Weil 1971 – Clark 1979 – Hine 1953 No OECD studies available	0,5 mL on 8 male rabbits skin for 24 h (14 labs)	NOT IRRITANT
Ocular Irritation	Weil 1971 – Clark 1979 – Hine 1953 – OECD 405 GLP	0,1 mL on 6 male rabbits for 7 days (20 labs) On rabbit	NOT IRRITANT The conjunctiva slightly to modarately irritated after 1 h, disappeared after 48 h. NOT IRRITANT

End point	Test	Dose	Result
Sensitisation	Hine 1953 No OECD studies available Patch Test 1973	Studies on 24 Guinea pigs : intradermal 0,1% sotonic saline sol. for 20 alternate days Workers in foam rubber factory	NOT SKIN SENSITIZER NOT SKIN SENSITIZER

Endpoint	Test	Dose	Result
Repeated-dose Toxicity Oral	Hine 1953	On 22 male and 22 female rats / test at 5/10/20% of diet for 1 years at 20% and 2 years at 10% and 26 controls	NOAEL = 8000-10000 mg /Kg bw/day
Repeated-dose Toxicity Inhalation	Renne 1992	On 10 male/female rats / test at 1000/2000/4000 mg/m3 for 6 h/day for 5 daYs for 13 weeks	LOAEC = 1000 mg/m3
Genetic Toxicity	Ames Test Doolittle 1988 compare to OECD 482	100/250/500/750/ 1000 µg/ml in water	NOT GENOTOXIC

Endpoint	Test	Dose	Result
Carcinogenicity	Hine 1953	On 22 male and 22 female rats / test at 5/10/20% of diet for 1 years at 20% and 2 years at 10% and 26 controls	NOT EXPECTED BE CARCINOGEN
Toxicity to reproduction	Wegener 1953 1981 reasonable agreement OECD 414	On 10 male and 10 female rats for 2 years at 2000 mg/kg Rat/mice/rabbit 1310/1280/1180 mg/kg per test	NO EFFECTS ON REPRODUCTION NO EFFECTS ON REPRODUCTION

GLYCERIN

Scenari espositivi: in crema mani al 10%

	Assorbimento	Appl./die	mgxKgxdie
Leave on	100 %	2	32,7

$$SED = \frac{100 \times 65{,}4 \times 0{,}10}{100} = 6{,}54$$

$$MOS = \frac{8000}{6{,}54} = 1223$$

GLYCERIN

Conclusioni:

Rapido assorbimento orale, metaboliti non tossici

Non irritante sulla cute e sugli occhi, non sensibilizzante, NOAEL 18000 mg/kg , inoltre non si dimostra essere mutageno, cancerogeno e tossico per la riproduzione

GRAZIE PER L'ATTENZIONE

Gruppo IV