

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : Glycidol

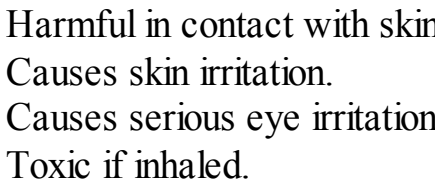
2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to Regulation (EC) No1272/2008
Carcinogenicity (Category 1B)
Germ cell mutagenicity (Category 2)
Reproductive toxicity (Category 1B)
Acute toxicity, Inhalation (Category 3)
Acute toxicity, Dermal (Category 4)
Acute toxicity, Oral (Category 4)
Eye irritation (Category 2)
Specific target organ toxicity - single exposure (Category 3)
Skin irritation (Category 2)

According to European Directive 67/548/EEC as amended.
May cause cancer. Possible risk of irreversible effects. May impair fertility. Toxic by inhalation. Harmful in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin.

Label elements

Pictogram	
Signal word	Danger
Hazard statement(s)	
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H360	May damage fertility or the unborn child.
Precautionary statement(s)	
P201	Obtain special instructions before use.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves/ protective clothing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P311	Call a POISON CENTER or doctor/ physician.
Hazard symbol(s)	
T	Toxic
R-phrases(s)	
R45	May cause cancer.
R60	May impair fertility.
R21/22	Also harmful in contact with skin and if swallowed.
R23	Also toxic by inhalation.
R36/37/38	Irritating to eyes, respiratory system and skin.
R68	Possible risk of irreversible effects.
S-phrases(s)	
S53	Avoid exposure - obtain special instructions before use.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Restricted to professional users.	
Other hazards - none	

3. COMPOSITION/INFORMATION ON INGREDIENTS

556-52-5	209-128-3	-	Carc. 1B; Muta. 2; Repr. 1B; Acute Tox. 3; Acute Tox. 4; Eye Irrit. 2; STOT SE 3; Skin Irrit. 2; H302, H312, H315, H319, H331, H335, H341, H350, H360 T, Carc.Cat.2, Mut.Cat.3, Repr.Cat.2, R45 - R60 - R21/22 - R23 - R36/37/38 - R68	<= 100 %
2,2'-[Oxybis(methylene)]bisoxirane				
2238-07-5	218-802-6	-	-	<= 2 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

END-OF-MSDS

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

Further information
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature: 2 - 8 °C

Moisture sensitive. Handle and store under inert gas.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Eye protection
Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Form	liquid
Safety data	
pH	no data available
Melting point	no data available
Boiling point	61 - 62 °C at 20 hPa - lit.
Flash point	81 °C - closed cup
Ignition temperature	416 °C
Lower explosion limit	no data available
Upper explosion limit	no data available
Density	1,117 g/mL at 25 °C
Water solubility	no data available
Relative vapour density	2,97

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Conditions to avoid
Heat, flames and sparks.

Materials to avoid
Strong acids, Strong bases, Heavy metals

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity
LD50 Oral - rat - 420 mg/kg
LC50 Inhalation - rat - 8 h -

Remarks: Lungs, Thorax, or Respiration:Emphysema. Lungs, Thorax, or Respiration:Other changes.
LC50 Inhalation - mouse - 4 h -

Remarks: Lungs, Thorax, or Respiration:Emphysema. Lungs, Thorax, or Respiration:Other changes.
LD50 Dermal - rabbit - 1.980 mg/kg

Skin corrosion/irritation
Skin - rabbit - Skin irritation

Serious eye damage/eye irritation
Eyes - rabbit - Severe eye irritation

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
In vitro tests showed mutagenic effects
Genotoxicity in vitro - mouse - lymphocyte
Mutation in mammalian somatic cells.
Genotoxicity in vitro - Hamster - ovary
Cytogenetic analysis
Genotoxicity in vitro - Hamster - Lungs
Mutation in mammalian somatic cells.
Genotoxicity in vitro - Hamster - Embryo
Morphological transformation.
Genotoxicity in vitro - Hamster - Lungs
Sister chromatid exchange
Genotoxicity in vitro - Hamster - ovary
Sister chromatid exchange
Genotoxicity in vitro - Human - lymphocyte
Sister chromatid exchange
Genotoxicity in vitro - Human - lymphocyte
Cytogenetic analysis
Genotoxicity in vivo - rat - Intraperitoneal
Cytogenetic analysis
Genotoxicity in vivo - rat - Oral
Cytogenetic analysis

Carcinogenicity
Carcinogenicity - mouse - Oral
Tumorigenic:Carcinogenic by RTECS criteria. Gastrointestinal:Tumors. Skin and Appendages: Other: Tumors.
Carcinogenicity - rat - Oral
Tumorigenic:Carcinogenic by RTECS criteria. Gastrointestinal:Tumors. Skin and Appendages: Other: Tumors.
Possible human carcinogen
IARC: 2A - Group 2A: Probably carcinogenic to humans (Glycidol)

Reproductive toxicity
Presumed human reproductive toxicant
Reproductive toxicity - rat - Oral
Paternal Effects: Spermatogenesis (including genetic material, sperm morphology,motility, and count). Paternal Effects: Testes, epididymis, sperm duct.
Reproductive toxicity - rat - Oral
Effects on Fertility: Male fertility index (e.g., # males impregnating females per # males exposed to fertile nonpregnant females).
Reproductive toxicity - mouse - Oral
Paternal Effects: Spermatogenesis (including genetic material, sperm morphology,motility, and count).
Developmental Toxicity - mouse - Oral

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Specific target organ toxicity - single exposure
May cause respiratory irritation.

Specific target organ toxicity - repeated exposure
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation	Toxic if inhaled. Causes respiratory tract irritation.
Ingestion	Harmful if swallowed.
Skin	Harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye burns.

Signs and Symptoms of Exposure
Central nervous system depression, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information
RTECS: Not available

12. ECOLOGICAL INFORMATION

Toxicity
no data available

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

Product
This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

ADR/RID
UN-Number: 2810 Class: 6.1 Packing group: III
Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (Glycidol)

IMDG
UN-Number: 2810 Class: 6.1 Packing group: III EMS-No: F-A, S-A
Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (Glycidol)
Marine pollutant: No

ATA
UN-Number: 2810 Class: 6.1 Packing group: III
Proper shipping name: Toxic liquid, organic n.o.s. (Glycidol)

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

16. OTHER INFORMATION

Text of H-code(s) and R-phrases mentioned in Section 3	
Acute Tox.	Acute toxicity
Carc.	Carcinogenicity
Eye Irrit.	Eye irritation
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H360	May damage fertility or the unborn child.
Muta.	Germ cell mutagenicity
T.	Toxic
R21/22	Harmful in contact with skin and if swallowed.
R23	Toxic by inhalation.
R36/37/38	Irritating to eyes, respiratory system and skin.
R45	May cause cancer.
R60	May impair fertility.
R68	Possible risk of irreversible effects.
Repr.Cat.2	Toxic to Reproduction Category 2

Further information
For R&D use only. Not for drug, household or other uses.



WARRANTY:
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Lookchem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.