

Safety Data Sheet
acc. to OSHA HCS (HazCom 2024)

Date of issue: 05/22/2025

Reviewed on 05/22/2025

1 Identification

- **Product identifier**
- **Trade name: Urea Reagent 2**
- **Other means of identification**
- **Catalogue number:** 424247, 459400, 459400-0
- **Application of the substance / the mixture:** Reagent for water analysis
- **Manufacturer/Supplier:**
Tintometer Inc.
6456 Parkland Drive
Sarasota, FL 34243
USA
phone: (941) 756-6410
fax: (941) 727-9654
www.lovibond.us
Made in Germany
- **Emergency telephone number:** + 1 866 928 0789 (English, French, Spanish)

* 2 Hazard(s) identification

- **Classification of the substance or mixture** The product is not classified as hazardous.
- **Label elements**
- **GHS label elements** none
- **Hazard pictograms** none
- **Signal word** none
- **Hazard statements** none
- **Classification according to (d)(1)(ii) of § 1910.1200**
The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.
- **Hazards not otherwise classified**
Vapours of the product are heavier than air and may accumulate on the ground, in mines, drains or cellars with higher concentration.

* 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** urease glycerol solution
- **Composition and Information on Ingredients:**
Percent ranges are used due to the confidential product information.

CAS: 56-81-5 EINECS: 200-289-5 RTECS: MA 8050000	Glycerol	30–60%
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- **Additional information:** Component(s) with workplace-related limit value, see section 8.

4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes (at least 15 min) under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink 1-2 glasses of water.
If symptoms persist consult doctor.

Safety Data Sheet

acc. to OSHA HCS (HazCom 2024)

Date of issue: 05/22/2025

Reviewed on 05/22/2025

Trade name: Urea Reagent 2

(Contd. of page 1)

· Most important symptoms and effects, both acute and delayed

mucous membrane irritation
after swallowing of large amounts:
abdominal pain
vomiting
diarrhoea
drowsiness
headache

· Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

· Extinguishing media**· Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· For safety reasons unsuitable extinguishing agents: Water with full jet**· Special hazards arising from the substance or mixture**

Can burn in fire.
Formation of toxic gases is possible during heating or in case of fire.
In case of fire, the following can be released:

Nitrogen oxides (NO_x)

acrolein

Ammonia (NH₃)

Carbon monoxide (CO) and carbon dioxide (CO₂)

· Advice for firefighters**· Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

· Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Suppress (knock down) gases/vapors/mists with a water spray jet.

Ambient fire may liberate hazardous vapours.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures**· Advice for non-emergency personnel:** No special measures required.**· Advice for emergency responders:** Protective equipment: see section 8**· Environmental precautions:**

Do not allow product to reach sewage system or any water course.

Dilute with plenty of water.

· Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Absorb with liquid-binding material (sand, diatomite, universal binders).

Dispose contaminated material as waste according to section 13.

· Reference to other sections

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

· Precautions for safe handling**· Advice on safe handling:**

Prevent formation of aerosols.

No special precautions are necessary if used correctly.

· Hygiene measures:

The usual precautionary measures for handling chemicals should be followed.

Do not eat, drink or smoke when using this product.

Wash hands before breaks and at the end of work.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS (HazCom 2024)

Date of issue: 05/22/2025

Reviewed on 05/22/2025

Trade name: Urea Reagent 2

(Contd. of page 2)

- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** see chapter 10
- **Further information about storage conditions:**
 - Protect from heat and direct sunlight.
 - Protect from exposure to the light.
 - Protect from humidity and water.
- **Recommended storage temperature:** 2-8°C / 36-46°F
- **Specific end use(s)** No further relevant information available.

* 8 Exposure controls/personal protection

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

CAS: 56-81-5 Glycerol

PEL (USA)	Long-term value: 15* 5** mg/m ³ mist; *total dust **respirable fraction
TLV (USA)	TLV withdrawn-insufficient data human occup. exp.
EL (Canada)	Long-term value: 10* 3** mg/m ³ *mist, total; **mist, respirable
EV (Canada)	Long-term value: 10 mg/m ³

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Engineering measures:**
 - Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.
 - See item 7.
- **Personal protective equipment:**
 - Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled.
- **Breathing equipment:**
 - Under normal use conditions according to the instruction manual no personal protective equipment is needed.
 - If exposure limits are exceeded or health impacts are experienced use respiratory protective device against the effects of fume/dust/aerosol.
- **Recommended filter device for short term use:** Filter A
- **Protection of hands:**
 - Preventive skin protection by use of skin-protecting agents is recommended.
 - After use of gloves apply skin-cleaning agents and skin cosmetics.
- **Material of gloves**
 - Nitrile rubber, NBR
 - Recommended thickness of the material: ≥ 0.11 mm
- **Penetration time of glove material**
 - Value for the permeation: Level ≤ 1 (10 min)
 - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**
 - Safety glasses
 - use against the effects of fumes / dust
 - Use protective goggles that have been tested and approved in accordance with government standards (like NIOSH).
- **Body protection:** Protective work clothing
- **Limitation and supervision of exposure into the environment:**
 - Do not allow product to reach sewage system or any water course.

* 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **Physical state** Liquid
- **Form:** Liquid
- **Color:** Colorless
- **Odor:** Recognizable

(Contd. on page 4)

US

Safety Data Sheet

acc. to OSHA HCS (HazCom 2024)

Date of issue: 05/22/2025

Reviewed on 05/22/2025

Trade name: Urea Reagent 2

(Contd. of page 3)

· Odor threshold:	Not determined.
· Melting point/freezing point:	Not determined.
· Initial boiling point and boiling range:	Not determined.
· Flammability:	Not applicable.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Flammability or explosive limits:	
Lower:	Not determined.
Upper:	Not determined.
· Flash point:	> 190°C (> 374°F) (CAS 56-81-5, c.c.)
· Auto-ignition temperature:	Product is not self-igniting.
· Decomposition temperature:	> 45°C (> 113°F) (CAS 9002-13-5)
· pH-value at 20°C (68°F):	8
· Kinematic viscosity:	Not determined.
· Solubility(ies)	
· Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not applicable (mixture).
· Vapor Pressure:	Not determined.
· Density at 20°C (68°F):	1.1 g/cm ³ (9.18 lbs/gal)
· Relative density:	Not determined.
· Relative vapor density:	Not determined.
· Particle characteristics	Not applicable (liquid).
· Information with regard to physical hazard classes	
· Oxidizing properties:	none
· Corrosive to metals	Based on available data, the classification criteria are not met.
· Other information	
· Solids content:	< 30 %
· Solvent content:	
· Organic solvents:	45-55 %
· Water:	> 20 %

10 Stability and reactivity

- **Reactivity** Fumes can combine with air to form an explosive mixture.
- **Chemical stability**
Stable at ambient temperature (room temperature).
sensitivity to light
heat-sensitive
- **Possibility of hazardous reactions** Reacts with strong acids and alkali.
- **Conditions to avoid** To avoid thermal decomposition do not overheat.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
Nitrogen oxides (NO_x)
Ammonia (NH₃)
Carbon monoxide (CO) and carbon dioxide (CO₂)
In case of fire: see section 5.

*11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.

· LD/LC50 values that are relevant for classification:		
CAS: 56-81-5 Glycerol		
Oral	LD50	12600 mg/kg (rat) (IUCLID)
Dermal	LD50	>18700 mg/kg (rabbit) (IUCLID)

(Contd. on page 5)

US

Safety Data Sheet

acc. to OSHA HCS (HazCom 2024)

Date of issue: 05/22/2025

Reviewed on 05/22/2025

Trade name: Urea Reagent 2

(Contd. of page 4)

Primary irritant effect:**on the skin:** Based on available data, the classification criteria are not met.**on the eye:** Based on available data, the classification criteria are not met.**Sensitization:** Based on available data, the classification criteria are not met.**Information on components:****Interactive effects** No interactive effects between components are known.**Other information:** see section 8 / 15**Carcinogenic categories****IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

Alternative sources for toxicological information No non-standard sources for toxicological information where used.**CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):** The following statements refer to the mixture:**Germ cell mutagenicity** Based on available data, the classification criteria are not met.**Carcinogenicity** Based on available data, the classification criteria are not met.**Reproductive toxicity** Based on available data, the classification criteria are not met.**STOT (specific target organ toxicity) -single exposure** Based on available data, the classification criteria are not met.**STOT (specific target organ toxicity) -repeated exposure** Based on available data, the classification criteria are not met.**Aspiration hazard** Based on available data, the classification criteria are not met.**Other information**

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12 Ecological information*Toxicity****Aquatic toxicity:****CAS: 56-81-5 Glycerol**EC50 >10000 mg/l/24h (Daphnia magna)
(IUCLID)

EC5 3200 mg/l (Entosiphon sulcatum) (72h)

LC50 (static) 54000 mg/l/96h (rainbow trout)

Bacterial toxicity:**CAS: 56-81-5 Glycerol**

EC5 >10000 mg/l (Pseudomonas putida) (16h)

Persistence and degradability**CAS: 56-81-5 Glycerol**

OECD 301 C 63 % / 14 d (readily biodegradable) (Modified MITI Test)

Bioaccumulative potential**CAS: 56-81-5 Glycerol**log Pow -1.76 (.) (experimental)
(Merck)**Mobility in soil** No further relevant information available.**Other adverse effects** Avoid transfer into the environment.

US

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS (HazCom 2024)

Date of issue: 05/22/2025

Reviewed on 05/22/2025

Trade name: Urea Reagent 2

(Contd. of page 5)

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Disposal must be made according to official regulations.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· UN-Number	
· DOT, IMDG, IATA	none
· UN proper shipping name	
· DOT, IMDG, IATA	none
· Transport hazard class(es)	
· DOT, IMDG, IATA	
· Class	none
· Packing group	
· DOT, IMDG, IATA	none
· Environmental hazards:	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· Special precautions for user	Not applicable.

*15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· Section 355 (Extremely hazardous substances):
None of the ingredients is listed.
· Section 313 (Specific toxic chemical listings):
None of the ingredients is listed.
· TSCA (Toxic Substances Control Act):
All components have the value ACTIVE.
· Hazardous Air Pollutants
None of the ingredients is listed.
· Proposition 65
· Chemicals known to cause cancer:
None of the ingredients is listed.
· Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed.
· Chemicals known to cause reproductive toxicity for males:
None of the ingredients is listed.
· Chemicals known to cause developmental toxicity:
None of the ingredients is listed.
· New Jersey Right-to-Know List:
CAS: 56-81-5 Glycerol

(Contd. on page 7)

US

Safety Data Sheet

acc. to OSHA HCS (HazCom 2024)

Date of issue: 05/22/2025

Reviewed on 05/22/2025

Trade name: Urea Reagent 2

(Contd. of page 6)

· New Jersey Special Hazardous Substance List:

None of the ingredients is listed.

· Pennsylvania Right-to-Know List:

CAS: 56-81-5 | Glycerol

· Pennsylvania Special Hazardous Substance List:

None of the ingredients is listed.

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· Information about limitation of use: Not required.**· Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Version number / date of revision: 21 / 05/22/2025**· Abbreviations and acronyms:**

OECD: Organisation for Economic Co-operation and Development

STOT: specific target organ toxicity

SE: single exposure

RE: repeated exposure

EC50: half maximal effective concentration

IC50: half maximal inhibitory concentration

NOEL or NOEC: No Observed Effect Level or Concentration

ACGIH® - American Conference of Governmental Industrial Hygienists

•A1 - Confirmed human carcinogen

•A2 - Suspected human carcinogen

•A3 - Confirmed animal carcinogen with unknown relevance to humans

•A4 - Not classifiable as a human carcinogen

•A5 - Not suspected as a human carcinogen

IARC - International Agency for Research on Cancer

•Group 1 - Carcinogenic to humans

•Group 2A - Probably carcinogenic to humans

•Group 2B - Possibly carcinogenic to humans

•Group 3 - Not classifiable as to carcinogenicity to humans

•Group 4 - Probably not carcinogenic to humans

NTP - National Toxicology Program, U.S. Department of Health and Human Services

•Group K - Known to be Human Carcinogens

•Group R - Reasonably Anticipated to be Human Carcinogens

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

· Sources Data arise from safety data sheets, reference works and literature.**· * Data compared to the previous version altered.**

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