

SAFETY DATA SHEET

as per regulation (EC) 2020/878

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

1.1 Product identifier

GlySmart[®]

A high-purity glycolic acid / arginine-based amphoteric ionic complex

"GlySmart" is a trademark of CrossChem Limited

Synonyms: Not Available

Product Code: 2200

1.2 Identified Uses

Identified Uses: Personal care

1.3 & 1.4 Supplier and Emergency contact details

COMPANY IDENTIFICATION CROSSCHEM LIMITED 100 WESTWOOD PLACE STE 430 BRENTWOOD TN 37027 UNITED STATES +1 615 716 3510 EMERGENCY TELEPHONE NUMBERS CHEMTREC: 800-424-9300 CHEMTREC CUSTOMER NUMBER: CCN5881

Revised: 02/06/24 Supersedes: 11/07/23

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

GHS Classification

H332 Harmful if inhaled (Category 4)

H314 Causes severe skin burns and eye damage (Category 1B)

2.2 GHS Label Elements, Including Precautionary Statements



Hazard statements

H332	Harmful if inhaled
H314	Causes severe skin burns and eye damage

Precautionary statements

P260	Do not breathe dusts or mists
P264	Wash skin thoroughly after handling
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves / protective clothing / eye protection / face protection
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+P361+P353	IF ON SKIN (or hair): Remove / take off immediately all contaminated clothing.
	Rinse skin with water / shower
P304+P340+310	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately Call a POISON CENTER or doctor
P305+P351	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,
+P338+310	if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor
P363	Wash contaminated clothing before reuse
P405	Store locked up
P501	Dispose of contents / container to an approved waste disposal plant

2.3 Other Hazards

Endocrine Chemicals The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures components

This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

	EC NO	CAS NO	CLASSIFICATION	WEIGHT (%)	MOLECULAR WEIGHT	MOLECULAR FORMULA
Glycolic Acid	201-180-5	79-14-1	Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; H332, H314, H318	64	76.05	HOCH ₂ COOH
Arginine Water	200-811-1 231-791-2	74-79-3 7732-18-5		10 26	174.2 18.02	$\begin{array}{c} C_6H_{14}N_4O_2\\ H_2O \end{array}$

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

Product: GlySmart[®] Date: 02/06/24

<u>4. FIRST AID MEASURES</u>

4.1 Description of first aid measures

Eye Contact

Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

Skin Contact

Immediately flush with water. Remove contaminated clothing and shoes. Get medical attention if irritation persists. Professionally wash clothing and shoes before re-use.

Inhalation (Breathing)

Remove to fresh air. If symptoms develop, seek immediate medical attention. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Ingestion (Swallowing)

Seek medical attention. Wash out mouth with water, provided person is conscious. Do not induce vomiting.

5. FIRE FIGHTING METHODS

5.1 Extinguishing media

SMALL FIRES: Water, dry chemical or carbon dioxide. LARGE FIRES: water spray, fog, or foam.

5.2 Special hazards

Flash Point	N/A (does not flash)
Explosive Lmts	N/A
Autoignition	N/A

Hazardous combustion and decomposition products

Smoke, soot, and toxic/irritating fumes (i.e., carbon dioxide, carbon monoxide, etc.).

Fire and explosion hazards

During a fire, irritating and highly toxic gases may be generated during combustion or decomposition.

5.3 Advice for firefighters

Fire fighters and others who may be exposed to the products of combustion should be equipped with NIOSH-approved positive pressure self-contained breathing apparatus (SCBA) and full protective clothing.

Product: GlySmart[®] Date: 02/06/24

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions

Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Eliminate all sources of ignition.

6.3 Methods and material for containment and clean-up

Containment

Safely stop discharge. Contain material, as necessary, with a dike or barrier. Stop material from contaminating soil, or from entering sewers or bodies of water.

Clean-Up/Personal Protection Equipment

Appropriate safety measures and protective equipment should be used.

Collection And Disposal

Stop discharge, if safe to do so. Use proper protective equipment. Absorb, place in a bag or drum and hold for proper disposal. Ventilate area and wash spill site after material pickup is complete. Dispose of according to applicable local, state and federal regulations.

7. HANDLING AND STORAGE

7.1 Technical descriptions

Stability

GlySmart[®] is stable when stored between 10°C (50°F) and 30°C (86°F).

Shelf Life

The specification chemical quality is guaranteed for one (1) year provided the container has not been opened.

Personal Hygiene

Wash thoroughly after handling, especially before eating, drinking, smoking, and using restroom facilities. Wash contaminated goggles face shield, and gloves. Professionally launder contaminated clothing before re-use.

7.2 Storage and Transfer conditions

Storage Conditions

Store product in dry, well ventilated area away from heat, ignition sources, and direct sunlight. Keep containers tightly closed.

<u>Transfer</u>

Follow good manufacturing and handling practices. Since material is very hygroscopic, eliminate all sources of humidity during handling or transfer. Do not breathe vapor. Do not get in eyes, on skin or on clothing. Avoid prolonged or repeated exposure.

Empty Container Precautions

Attention! This container can be hazardous when empty. Follow label warnings even after container is emptied since empty containers may retain product residues. Do not reuse empty container without professional cleaning for food, clothing, or products for human or animal consumption or where skin contact can occur.

Additional Information

GlySmart[®] to be mixed before using.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.2 Exposure controls and protection

Engineering Controls/Ventilation

Local exhaust ventilation is recommended when dusts can be released.

Eye Protection

Wear chemical splash goggles. An eye wash facility should be readily available. Wear NIOSH/MSHAapproved equipment (UN 166).

Skin Protection

Wear protective clothing and appropriate impervious gloves. Because a variety of protective gloves exist, consult glove manufacturer to determine the proper type for a specific operation. An emergency shower should be readily available. Use Nitrile rubber gloves 0.11 mm thickness minimum.

Respiratory Protection

Avoid breathing vapor or dusts. Wear NIOSH/MSHA-approved equipment (UN 166). Determine the appropriate type by consulting the respirator manufacturer. High airborne concentrations may necessitate the use of self-contained breathing apparatus (SCBA) or a supplied air respirator. Respiratory protection programs must be in compliance with 29 CFR 1910.134 (US) and CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

VOC Material Specific Grvty	Not Determined Not Determined 1.25 – 1.30 g/cm ³ (20°C)
	1.23 – 1.28 g/cm ³ (55 °C)

NOTE: The physical data presented above are typical values and should not be construed as a specification.

9.2 Other information

9.2.2 Other safety-related measures

Evaporation Rate [kg/(s*m ²)]	No data available
Explosive Properties	No data available

10. STABILITY AND REACTIVITY

10.2 Chemical Stability

Stable under normal conditions.

10.3 Hazardous Polymerization

Will not occur.

10.4 Conditions To Avoid

High temperatures. Humid conditions.

10.5 Incompatibility With Other Materials

Reducing agents. Oxidizers. Strong bases. Sensitization: Will not occur.

11. TOXICITY INFORMATION

11.1 Information on hazard classes

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting.

Toxicity Data

•	Glycolic Acid		
	Oral LD50	Rat	>2,000 mg/kg
	Inhalation LC50	Rat	3.6 mg/L
	Intravenous LD50	Cat	1 GM/KG mg/kg
٠	Arginine		
	Oral LD50	Rat	>5110 mg/kg

Irritation Data

٠	Glycolic Acid	
	Eyes	
	Skin	

Severe Irritation Severe Irritation

Chronic Exposure – Reproductive Hazard

Glycolic Acid

Species: Rat Dose: 9 Gm/KG Route of Application: Oral Exposure Time: (7-12D Preg) Result: Maternal effects: Other effects. Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific developmental abnormalities: Musculoskeletal system

Rabbit

Rabbit

Arginine

The chemical structure does not suggest a specific alert for such an effect.

11.2 Information about other hazards

11.2.1 Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties: No data available

12. ECOLOGICAL INFORMATION

12.1 Acute Toxicity Tests

GlySmart[®] is expected to be of moderate toxicity after single ingestion. The product has not been tested. The statement has been derived from the properties of the individual components.

12.2 Persistence and degradability

GlySmart[®] is expected to be readily biodegradable. The product has not been tested. The statement has been derived from the properties of the individual components.

 Glycolic Acid Test Type: LC50 Fish Species: Brachydanio rerio Time: 96 hr. Value: 5,000 mg/l

After 7 days, 89.3% is biodegraded (closed bottle test)

 Arginine Test Type: LC50 Fish Species: Brachydanio rerio Time: 96 hr. Value: 2,800 mg/l

OECD 203;ISO 7346; 84/449/EEC, C.1. Semistatic

12.6 Endocrine disrupting properties

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

13. DISPOSAL CONSIDERATIONS

Disposal

Dispose in accordance with all local, state, and federal regulations.

General Statements

Federal regulations may apply to empty container. State and/or local regulations may be different.

General Recommendations

Of the methods of disposal currently available, it is recommended that an alternative be selected according to the following order of preference, based upon environmental acceptability: (1) recycle or rework, if feasible; (2) incinerate at an authorized facility; or (3) treat at an acceptable waste treatment facility.

Special Instructions

Be sure to contact the appropriate government environmental agencies if further guidance is required.

14. TRANSPORT INFORMATION

DOT, IATA and IMO

Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s. (Glycolic Acid) UN#: 3265 Class: 8 Packing Group: II Hazard Label: Corrosive EmS Code: F-A, S-B

15. REGULATORY INFORMATION

EU Additional Classification

Symbol of Danger: C Indication of Danger: Corrosive Risk Statements: Harmful if swallowed. Causes burns. Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately.

US Classification and label text

Indication of Danger: Corrosive Risk Statements: Harmful if swallowed. Causes burns. Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately.

United States Regulatory Information

Sara Listed: No TSCA Inventory Item: Yes CERCLA Hazardous Material: Yes

Canada Regulatory Information

WHMIS Classification - E: CLASS E Corrosive material.

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes NDSL: No

California Prop 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

Acute Tox.	Acute toxicity
Eye Dam.	Serious eye damage
H332	Harmful if inhaled
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
Skin Corr.	Skin corrosion

Hazard Rating			
HMIS NFPA			
Health	3	3	
Fire	0	0	
Reactivity	0	0	

Product Use

Personal Care

Product: GlySmart[®] Date: 02/06/24

ABBREVIATIONS:

ACGIH= American Conference of Governmental Industrial HygienistsOSHA= Occupational Safety and Health AdministrationTLV= Threshold Limit ValuePEL= Permissible Exposure LimitTWA= Time Weighted AverageSTEL= Short-Term Exposure LimitBAc= Butyl acetate

The information contained herein relates only to the specific material identified. CrossChem Limited believes that such information is accurate and reliable as of the date of this material safety data sheet, but no representation, guarantee or warranty, expressed or implied, is made as to the accuracy, reliability, or completeness of the information. CrossChem Limited urges persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.