

# SAFETY DATA SHEET

## SECTION 1: Identification of the substance/ mixture and of the company/ undertaking

- a. Product Name : X-CLARITY™ Hydrogel Solution
- Product Number : C13103, C13105
- b. Relevant identified uses of the substance or mixture and uses advised against : **Identified uses**  
Laboratory chemicals, Manufacture of substances
- c. Manufacturer & Supplier : Aligned Genetics, Inc  
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South Korea  
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**For research use only. Not intended for human or animal diagnostic or therapeutic use.**

## SECTION 2: Hazards identification

### a. GHS classification

Classification according to Regulation (EC) No 1272/2008  
Acute Tox. 4 H302 Harmful if swallowed.  
Acute Tox. 4 H312 Harmful in contact with skin  
Skin Irrit. 2 H315 Causes skin irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
Muta. 1B H340 May cause genetic defects.  
Carc. 1B H350 May cause cancer.  
Repr. 2 H361 Suspected of damaging fertility or the unborn child.  
STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.

### b. GHS-Labeling

Labeling according to Regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Danger

Hazard statements

H302 + H332 – Harmful if swallowed or inhaled.

H315 – Causes skin irritation.

H317 – May cause an allergic skin reaction.

H319 – Causes serious eye irritation.

H340 – May cause genetic defects.

H350 – May cause cancer.

H361 – Suspected of damaging fertility or the unborn child.

H372 – Causes damage to organs through prolonged or repeated exposure if swallowed.

H402 – Harmful to aquatic life.

Precautionary statements

P201 – Obtain special instructions before use. (H340) (H350) (H361)

P202 – Do not handle until all safety precautions have been read and understood. (H340) (H350) (H361)

P260 – Do not breathe dust/fume/gas/mist/vapors/spray. (H372) (H3317, H332 – P261: omitted b/c of P260)

P264 – Wash skin thoroughly after handling. (H302) (H315) (H319) (H372)

P270 – Do not eat, drink, or smoke when using this product. (H302) (H372)

P271 – Use only outdoors or in a well-ventilated area. (H332)

P272 – Contaminated work clothing should not be allowed out of the workplace. (H317)

P273 – Avoid release to the environment. (H402)

P280 – Wear protective gloves, eyewear, and clothing. (H315) (H319) (H340) (H350) (H361)

P301 + P312 + P330 – IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell. (H302)

P302 + P352 – IF ON SKIN: Wash with plenty of soap and water. (H315)

P304 + P312 + P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician immediately if you feel unwell. (H332)

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do so. Continue rinsing. (H319)

P308 + P313 – IF exposed or concerned: Get medical advice/attention. (H340) (H350)

(H361) (H372 – P314: omitted b/c of P308 + P313 and other more specific precautionary statements)

P332 + P313 – If skin irritation or rash occurs: Get medical advice/attention. (H315)

P337 + P313 – If eye irritation persists: Get medical advice/attention. (H319)

P362 + P364 – Take off contaminated clothing and wash before reuse. (H315)

P405 – Store locked up. (H340) (H350) (H361)

P501 – Dispose of contents/container to an approved waste disposal plant. (H302) (H340) (H350) (H361) (H372) (H402)

**c. Other hazard which do not result in classification**

None

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**SECTION 3: Composition/ Information on ingredients**

**3b. Mixtures**

Component:	Acrylamide
Formula:	C <sub>3</sub> H <sub>5</sub> NO
CAS-No.:	79-06-1
Weight%:	3.5-5.5%
Component:	Sodium chloride
Formula:	NaCl
CAS-No.:	7647-14-5
Weight%:	0.5-1%

Component:	Potassium chloride
Formula:	KCl
CAS-No.:	7447-40-7
Weight%:	0.01-0.02%
Component:	Sodium hydrogen phosphate
Formula:	Na <sub>2</sub> HPO <sub>4</sub>
CAS-No.:	7558-79-4
Weight%:	0.01-0.02%
Component:	Potassium dihydrogen phosphate
Formula:	KH <sub>2</sub> PO <sub>4</sub>
CAS-No.:	7778-77-0
Weight%:	0.02-0.04%

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#### SECTION 4: First aid measures

- a. In case of eye contact**  
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
- b. In case of skin contact**  
Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Immediate medical attention is required.
- c. If inhaled**  
Move to fresh air. If not breathing, give artificial respiration. Call a physician or Poison Control Centre immediately.
- d. If swallowed**  
Induce vomiting and call for medical help.
- e. Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

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#### SECTION 5: Firefighting measures

- a. Suitable extinguishing media**  
Use CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- b. Specific hazards arising from the chemical**  
Carbon oxides, nitrogen oxide.
- c. Special protective actions for fire-fighters**  
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
- d. Further information**  
No further relevant information available.

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#### SECTION 6: Accidental release measures

- a. Personal precautions, protective equipment and emergency procedures**

Avoid contact with skin, eyes and clothing. Use personal protective equipment.

**b. Environmental precautions**

Do not allow to enter sewers/ surface or groundwater.

**c. Methods and materials for containment and cleaning up**

Take up mechanically and collect in a suitable container for disposal.

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

**d. Reference to other sections**

No further relevant information available.

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## SECTION 7: Handling and storage

**a. Precautions for safe handling**

Always wear recommended Personal Protective Equipment (mask, glove).

**b. Conditions for safe storage**

Keep away from sources of ignition, direct sunlight, and high temperature.

**c. Specific end use(s)**

No further relevant information available.

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## SECTION 8: Exposure controls/ personal protection

**a. Control parameters**

Components with workplace control parameters.

**b. Appropriate engineering controls**

Avoid contact eyes, skin. Wash hands immediately after handling.

**c. Personal protective equipment**

**Hand protection**

Protective gloves.

**Eye protection**

Safety glasses.

**Skin and Body protection**

Handle with Protective gloves and wear lab clothing.

**Respiratory protection**

Hood.

**Control of Environmental exposure**

Hood.

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## SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

<b>a. Appearance</b>	Form: liquid
<b>b. Odor</b>	Odorless
<b>c. Odor Threshold</b>	No data available
<b>d. pH</b>	[7.6]
<b>e. Melting point/freezing point</b>	No data available

f. Initial boiling point and boiling range	100°C
g. Flash point	No data available
h. Evaporation rate	No data available
i. Flammability (solid, gas)	No data available
j. Lower explosion limit	No data available
k. Upper explosion limit	No data available
l. Vapour pressure	No data available
m. Vapour density	No data available
n. Specific Gravity/Relative density	No data available
o. Solubility	Fully miscible
p. Partition coefficient: n-octanol / water	No data available
q. Auto-ignition temperature	No data available
r. Decomposition temperature	No data available
s. Viscosity	No data available
t. Dynamic viscosity	No data available

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## SECTION 10: Stability and reactivity

- a. **Stability**  
Stable under recommended storage conditions.
- b. **Reactivity**  
No data available.
- c. **Possibility of hazardous reactions**  
No further relevant information available.
- d. **Conditions to avoid**  
No further relevant information available.
- e. **Incompatible materials**  
No further relevant information available.
- f. **Hazardous decomposition products**  
Carbon monoxide.

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## SECTION 11: Toxicological information

- a. **Delayed and immediate effects and also chronic effect from short and long term exposure**
  - Acute toxicity**  
Neurotoxic.
  - Skin corrosion/irritation**  
Irritant to skin and mucous membranes.
  - Serious eye damage/eye irritation**  
Irritant to eye.
  - Respiratory or skin sensitization**  
2
  - Germ cell mutagenicity**  
1B
  - Carcinogenicity**

1B

**Reproductive toxicity**

No further relevant information available.

**Specific target organ toxicity – single exposure**

No further relevant information available.

**Specific target organ toxicity – repeated exposure**

Peripheral nervous system.

**Aspiration hazard**

No further relevant information available.

**Additional information**

No further relevant information available.

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**SECTION 12: Ecological information**

**a. Toxicity**

No further relevant information available.

**b. Persistence and degradability**

No further relevant information available.

**c. Bioaccumulative potential**

No further relevant information available.

**d. Mobility in soil**

No further relevant information available.

**e. Results of PBT and vPvB assessment**

No data available.

**f. Other adverse effects**

No further relevant information available.

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**SECTION 13: Disposal considerations**

**a. Disposal methods**

Hand over to hazardous waste disposer.

**b. Contaminates packaging**

Accord to official regulations.

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**SECTION 14: Transport information**

<b>UN number</b>	ADR/RID: -	IMDG: 3426	IATA: 3426
<b>UN proper shipping name</b>	ADR/RID: -	IMDG: ACRYLAMIDE, LIQUID	IATA: ACRYLAMIDE, LIQUID
<b>Transport hazard class(es)</b>	ADR/RID: -	IMDG: 6.1	IATA: 6.1

<b>Packaging group</b>	ADR/RID: -	IMDG: III	IATA: III
<b>Environmental hazards</b>	ADR/RID: -	IMDG Marine pollutant: no	IATA: -
<b>Special precautions for user</b>	No data available		
<b>EMS Number</b>	ADR/RID: -	IMDG: F-A, S-A	IATA: -

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## SECTION 15: Regulatory information

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

- a. Regulation under the Occupational Safety and Health Act**  
Water hazard class: class 3, Substances of very high concern: acrylamide (79-06-1).
- b. Chemical safety assessment**  
A chemical safety assessment has not been carried out.

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## SECTION 16: Other information

### Further information

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End of Safety Data Sheet