

SAFETY DATA SHEET

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

- a. Product Name : X-CLARITY™ Polymerization initiator
- Product Number : C13104, C13106
- 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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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

Skin Irrit. 2 H315

Skin Sens. 1 H317

Eye Irrit. 2 H319

Acute Tox. 4 H332

STOT SE 3a H335

b. GHS-Labeling

Labeling according to Regulation (EC) No 1272/2008

Hazard pictograms



Signal word
Warning

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.

H335 – May cause respiratory irritation.

Precautionary statements

P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 – Wash skin thoroughly after handling.

P270 – Do not eat, drink, or smoke when using this product.

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

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

P280 – Wear protective gloves, eyewear, and clothing.

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

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

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.

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.

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

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

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

P403 + P233 – Store in a well-ventilated place. Keep the container tightly closed.

P405 – Store locked up.

P501 – Dispose of contents/container to an approved waste disposal plant.

c. Other hazard which do not result in classification

None

SECTION 3: Composition/ Information on ingredients

3a. Substances

Component:	VA-044
Synonyms:	2,2'-Azobis[2-(2-imidazolin-2-yl)propane]dihydrochloride
Formula:	$C_{12}H_{22}N_6O \cdot 2HCl$
CAS-No.:	27776-21-2
Weight%:	100%

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 reuse.

c. If inhaled

Move to fresh air. If not breathing, give artificial respiration. Call a physician or Poison Control Centre immediately.

d. If swallowed

Do not induce vomiting without medical help.

- e. **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- a. **Suitable extinguishing media**
Use CO₂, 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.

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.
- d. **Reference to other sections**
No further relevant information available.

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, high temperature.
- c. **Specific end use(s)**
No further relevant information available.

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.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

a. Appearance	Form: powder
b. Odor	No data available
c. Odor Threshold	No data available
d. pH	[5.5 - 6.5]
e. Melting point/freezing point	188 -193°C
f. Initial boiling point and boiling range	No data available
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	Water-soluble
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

Other safety information

No further relevant information available.

SECTION 10: Stability and reactivity

- a. **Stability**
Hygroscopic, Thermally unstable.
- b. **Reactivity**
No data available.
- c. **Possibility of hazardous reactions**
No further relevant information available.
- d. **Conditions to avoid**
Moisture, direct sunlight, high temperature.
- e. **Incompatible materials**

Strong oxidizing agents.

f. Hazardous decomposition products

Hydrogen chloride, nitrogen oxides, carbon monoxide, carbon dioxide.

SECTION 11: Toxicological information

a. Delayed and immediate effects and also chronic effect from short and long term exposure

Acute toxicity

2,2'-Azobis[2-(2-imidazolin-2-yl)propane]dihydrochloride (27776-21-1) : Oral LD50 2.8 g/kg (Rat).

Skin corrosion/irritation

Irritant to skin and mucous membranes.

Serious eye damage/eye irritation

No further relevant information available.

Respiratory or skin sensitization

Sensitization was accepted by human.

Germ cell mutagenicity

No further relevant information available.

Carcinogenicity

No further relevant information available.

Reproductive toxicity

No further relevant information available.

Specific target organ toxicity – single exposure

No further relevant information available.

Specific target organ toxicity – repeated exposure

No further relevant information available.

Aspiration hazard

No further relevant information available.

Additional information

No further relevant information available.

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.

SECTION 13: Disposal considerations

- a. Disposal methods**
Hand over to hazardous waste disposer.
- b. Contaminates packaging**
Accord to official regulations.

SECTION 14: Transport information

UN number	ADR/RID: -	IMDG: -	IATA: -
UN proper shipping name	ADR/RID: Not dangerous goods	IMDG: Not dangerous goods	IATA: Not dangerous goods
Transport hazard class(es)	ADR/RID: -	IMDG: -	IATA: -
Packaging group	ADR/RID: -	IMDG: -	IATA: -
Environmental hazards	ADR/RID: -	IMDG: -	IATA: -
Special precautions for user	No data available		
DOT (US)	Not dangerous good		

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**
No further relevant information available.
- b. Chemical safety assessment**
A chemical safety assessment has not been carried out.

SECTION 16: Other information**Further information**

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End of Safety Data Sheet