

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Identification

Product Name X-CLARITY™ Polymerization initiator
Product Number C13104

Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Laboratory chemicals, Manufacture of substances

Manufacturer

Logos Biosystems, Inc.
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Dongan-gu, Anyang-si
Gyeonggi-do 14055
South Korea
Telephone: +82-31-478-4185
Fax: +82-31-360-4277
E-mail: sales@logosbio.com

Supplier

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Emergency telephone number +82 31 478 4185

For research use only. Not intended for human or animal diagnostic or therapeutic use.

2. HAZARDS IDENTIFICATION

[GHS classification]

Classification of the substance or mixture

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

Label elements

Labelling according 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 container tightly closed.
- P405 – Store locked up.
- P501 – Dispose of contents/container to an approved waste disposal plant.

Other hazards

None

3. COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures

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

4. FIRST AID MEASURES

Description of first aid measures

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.
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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.
After inhalation	Move to fresh air. If not breathing, give artificial respiration. Call a physician or Poison Control Centre immediately
After swallowing	Do not induce vomiting without medical help
Indication of any immediate medical attention and special treatment needed	No further relevant information available

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

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

Special hazards arising from the substances or mixture

Carbon oxides, nitrogen oxide

Advice of fire-fighters

Protective equipment

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Further information

No further relevant information available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

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

Environmental precautions

Do not allow to enter sewers/ surface or ground water.

Methods and materials for containment and cleaning up

Take up mechanically and collect in suitable container for disposal.

Reference to other sections

No further relevant information available

7. HANDLING AND STORAGE

Precautions for safe handling

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

Conditions for safe storage, including any incompatibilities

Keep away from sources of ignition, high temperature.

Specific end use(s)

No further relevant information available

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Control parameters**

Components with workplace control parameters

Exposure controls**Appropriate engineering controls**

Avoid contact eyes, skin. Wash hands immediately after handling

Personal protective equipment

Respiratory protection	Hood
Hand protection	Protective gloves
Eye protection	Safety glasses
Skin and Body protection	Handle with Protective gloves and wear lab clothing
Control of Environmental exposure	Hood

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Appearance	Form: powder
Odour	No data available
Odour Threshold	No data available
pH	[5.5 - 6.5]
Melting point/freezing point	188 -193°C
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available

Specific Gravity/Relative density	No data available
Solubility	Water soluble
Partition coefficient: n-octanol / water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Dynamic viscosity	No data available

Other safety information

No further relevant information available

10. STABILITY AND REACTIVITY

Stability

Stability	Hygroscopic, Thermally unstable
Reactivity	No data available

Possibility of hazardous reactions

No further relevant information available

Conditions to avoid

Moisture, direct sunlight, high temperature

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Hydrogen chloride, nitrogen oxides, carbon monoxide, carbon dioxide

11. TOXICOLOGICAL INFORMATION

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

Potential health effects

No further relevant information available

Additional Information

No further relevant information available

12. ECOLOGICAL INFORMATION

Toxicity

No further relevant information available

Persistence and degradability

No further relevant information available

Bioaccumulative potential

No further relevant information available

Mobility in soil

No further relevant information available

Results of PBT and vPvB assessment

No data available

Other adverse effects

No further relevant information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product

Hand over to hazardous waste disposer

Contaminated packaging

Accord to official regulations

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods
IATA
Not dangerous goods

15. REGULATORY INFORMATION

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

Safety, health and environmental regulations/legislation specific for the substance or mixture
No further relevant information available

Chemical safety assessment

A chemical safety assessment has not been carried out

16. OTHER INFORMATION

Further information

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End of Safety Data Sheet