

Material Safety Data Sheet

1. Identification of the substance/mixture and of the supplier

Product name	CHIR99021
Manufacturer	TargetMol Chemicals Inc. 34 Washington Street, Wellesley Hills, Massachusetts 02481, USA
Country of origin	USA
Emergency telephone number	In an emergency call 999 or 112 (or local emergency number) 111 - medical advice in England, Scotland & Wales (NHS Wales 0845 46 47) 18001 111 on a textphone or www.interpreternow.co.uk/nhs111 for NHS British Sign Language (BSL) interpreter service

2. Hazards identification

Classification of substance or mixture	Acute toxicity, Category 2, Oral Skin irritation, Category 2 Eye irritation, Category 2 Specific target organ toxicity, single exposure, Category 3
GHS labelling:	
Pictogram	
Signal word	Danger
Hazard statement(s)	H300 Fatal if swallowed H315 Causes skin irritation H319 Causes serious eye irritation H335 May cause respiratory irritation
Precautionary statement(s)	
Prevention	P264 Wash hands thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/... P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P271 Use only outdoors or in a well-ventilated area.
Response	P301+P316 IF SWALLOWED: Get emergency medical help immediately. P321 Specific treatment (see ... on this label). P330 Rinse mouth. P302+P352 IF ON SKIN: Wash with plenty of water P332+P317 If skin irritation occurs: Get medical help. P362+P364 Take off contaminated clothing and wash it before reuse. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304+P340 IF INHALED: Remove person to fresh air and keep in a position comfortable for breathing. P319 Get medical help if you feel unwell.

Storage	P405 Store locked up. P403+P233 Store in a well-ventilated place. Keep container tightly closed.
Disposal	P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

3. Composition/information on ingredients

Chemical name	Common name and synonyms	CAS number	EC number
CHIR99021	-	252917-06-9	-

4. First aid measures

Eye contact	Rinse with pure water for at least 15 minutes. Consult a doctor.
Skin contact	Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.
Inhalation	Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.
Ingestion	Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or a Poison Control Centre immediately.

5. Fire-fighting measures

Suitable extinguishing media	Use dry chemical, carbon dioxide or alcohol-resistant foam.
Specific hazards arising from substance	No data available
Protective equipment	Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contact with skin and eyes. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
Environmental precautions	Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.
Methods & material for containment and cleaning up	Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. Handling and storage

Handling	Handle in a well-ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.
Storage	Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials. Store at low temperature Powder: -20 °C for 1 year In solvent: -80 °C for 1 year

8. Exposure controls / personal protection

Control parameters	No data available
Engineering controls	Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk elimination area.
Eye	Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).
Skin	Wear fire/flamm resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
Inhalation	If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator

9. Physical and chemical properties & safety characteristics

Physical state	Solid
Colour	White
Odour	No data available
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling range	784.08 °C at 760 mmHg
Flammability	No data available
Explosion limits	No data available
Flash point	427.996 °C
Autoignition temperature	No data available
Decomposition temperature	No data available
pH	No data available
Viscosity	No data available
Solubility	DMSO: 105 mg/ml (225.64 mM), sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
Partition co-efficient	No data available
Vapour pressure	No data available
Density	1.48 g/cm ³
Relative vapour density	No data available
Particle characteristics	No data available

10. Stability and reactivity

Reactivity	No data available
Chemical stability	No data available
Possibility of hazardous reactions	No data available
Conditions to avoid	No data available
Incompatible materials	No data available
Hazardous decomposition products	No data available

11. Toxicological information

Acute toxicity	Oral: no data available Inhalation: no data available Dermal: no data available
Skin corrosion/irritation	No data available
Serious eye damage/irritation	No data available
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
STOT-single exposure	No data available
STOT-repeated exposure	No data available
Aspiration hazard	No data available

12. Ecological information

Toxicity to fish	No data available
Toxicity to daphnia and other aquatic invertebrates:	No data available
Toxicity to algae:	No data available
Toxicity to microorganisms:	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Other adverse effects	No data available

13. Disposal considerations

Product	The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.
Contaminated packaging	Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14. Transport information

UN number	No data available
UN proper shipping name	No data available
Transport hazard class(es)	No data available
Packing group	No data available
Environmental hazards	No data available
Special precautions for user	No data available
Transport in bulk	No data available

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture		
European Inventory of Existing Commercial Chemical Substances (EINECS) EC Inventory		Not listed
EC Inventory		Not listed
United States Toxic Substances Control Act (TSCA)		Not listed
China Catalog of Hazardous chemicals 2015		Not listed
New Zealand Inventory of Chemicals (NZIoC)		Not listed
Philippines Inventory of Chemicals and Chemical Substances (PICCS)		Not listed
Vietnam National Chemical Inventory		Not listed
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)		Not listed
Korea Existing Chemicals List (KECL)		Not listed

16. Other information

Qkine products are not for use in humans and are not for diagnostic or therapeutic use. Customers agree to comply with the provisions of applicable international and local statutes, rules, regulations, ordinances and orders when using Qkine products.

Qkine products are for internal research purposes only and not for resale or transfer in any form (including as part of a kit) to a third party unless agreed with Qkine in writing.

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