

Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION		
Product Name:	3-Chlorodihydro-2H-pyran-4(3H)-one	
Compound ID:	AG001RWO	
CAS Number:	160427-98-5	
Indentified uses:	Laboratory chemicals, manufacture of chemical compounds	
Company:	Angene	
2. HAZARDS IDENTIFICATION		
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Acute toxicity, oral,(Category 4), H302 Skin corrosion/irritation,(Category 2), H315 Serious eye damage/eye irritation,(Category 2A), H319 Specific target organ toxicity, single exposure; Respiratory tract irritation,(Category 3), H335 For the full text of the H-Statements mentioned in this Section, see Section 16.		
Pictogram	$\langle \mathbf{\hat{t}} \rangle$	
Signal Word	warning	
Hazard statements H302 H315 H319 H335	Harmful if swallowed Causes skin irritation Causes serious eye irritation May cause respiratory irritation	

Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name: CAS Number:	3-Chlorodihydro-2H-pyran-4(3H)-one 160427-98-5	
Molecular Formula:	C5H7CIO2	
Molecular Weight:	134.5609	g/mol

4. FIRST AID MEASURES

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2 or section 11)

Indication of any immediate medical attention and special treatment needed

no data available

5. FIREFIGHTING MEASURES

Extinguishing media Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NOx), Hydrogen bromide gas

Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection. For precautions see section 2.

Conditions for safe storage, including any incompatibilities

Specific end use(s)

Apart from the uses mentioned in section 1, no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance / Form: Odor: Odor Threshold: pH: Melting point: Boiling point/range: Flash point: Evapouration rate: Flammability: Upper/lower flammability: explosive limits: Vapor pressure: Vapour density: Relative density: Water solubility: Partition coefficient: Auto-ignition temperature: Decomposition Temp: log Pow: Viscosity: Explosive properties:	no data available no data available
Explosive properties: Oxidizing properties:	no data available no data available

Other safety information

no data available

10. STABILITY AND REACTIVITY

Reactivity:	no data available
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions	no data available
Conditions to avoid	no data available
Incompatible materials	no data available
Hazardous decomposition products	no data available
Other decomposition products:	no data available
In the event of fire:	see section 5

11. TOXICOLOGICAL INFORMATION

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Acute toxicity:	no data available
Dermal:	no data available
Skin corrosion/irritation:	no data available
Serious eye damage/irritation	no data available
Respiratory or skin sensitisation	The preceding data, or interpretation of data, was determined using Quantitative Structure Activity Relationship (QSAR) modeling.
Germ cell mutagenicity	no data available
Carcinogenicity:	
IARC:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	- · · · · · · · · · · · · · · · · · · ·

Specific target organ toxicity - single	Inhalation - May cause respiratory irritation.
exposure	
Specific target organ toxicity -	no data available
repeated exposure	
Aspiration hazard	no data available
Additional Information	RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION	
Toxicity Persistence and degradability Bioaccumulative potential Mobility in soil Results of PBT and vPvB assessment Other adverse effects	no data available no data available no data available no data available PBT/vPvB assessment not available as chemical safety assessment not required/not conducted no data available
13. DISPOSAL CONSIDERATIONS	6
Waste treatment methods Contaminated packaging	Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dispose of as unused product.
14. TRANSPORT INFORMATION	
DOT (US) IMDG IATA	This substance is considered to be non-hazardous for transport. This substance is considered to be non-hazardous for transport. This substance is considered to be non-hazardous for transport.
15. REGULATORY INFORMATION	l
SARA 302: SARA 313: SARA 311/312 Hazards Massachusetts Right To Know Components Pennsylvania Right To Know Components New Jersey Right To Know Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. Acute Health Hazard No components are subject to the Massachusetts Right to Know Act.
California Prop. 65 Components	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

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

Acute Tox.	Acute toxicity
Eye Irrit.	Eye irritation
Skin Irrit.	Skin irritation
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Angene shall not be held liable for any damage resulting from handling or from contact with the above product. See invoice or packing slip for additional terms and conditions of sale.