



SAFETY DATA SHEET

SDS#: GS-33542 Rev.A
Revision Date: 03/28/2022

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1. Identification

Product identifier All Genemed® CISH Probes
Other means of identification
Product code 70-0027-15, 70-0028-15, 70-0029-15, 70-0030-15, 70-0031-15
Recommended use N/A
Recommended restrictions None known
Manufacturer/Importer/Supplier/Distributor information

Manufacturer/Supplier Sakura Finetek USA, Inc.
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2. Hazard(s) identification

Physical hazards N/A
Health hazards **GHS classification in accordance with: OSHA (29 CFR 1910.1200)**
- Carcinogenicity, Cat. 2
- Specific target organ toxicity (repeated exposure), Cat. 2
- Toxic to reproduction, Cat. 1A

Label elements
Hazard symbol



Signal word Danger
Hazard statement H351 Suspected of causing cancer [route]
H360 May damage fertility or the unborn child [effect, route]
H373 May cause damage to organs [organs] through prolonged or repeated exposure [route]

Precautionary statement

Prevention P201 Obtain special instructions before use.
Do not handle until all safety precautions are read and understood.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection
Response P308+P313 IF exposed or concerned: Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.
Storage P405 Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Keep cool. Store locked up. Store at 2C-8C.
Disposal P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNO C) None Known

3. Composition/information on ingredients

Mixtures: Mixtures

Chemical name	CAS number	EC No.	%
Formamide	75-12-7	200-842-0	20-40%

*The specific chemical identities and/or actual concentrations or actual concentration ranges for one or more listed components are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).

4. First-aid measures

Inhalation	Call a poison center or doctor if you feel unwell. Acute and delayed symptoms and effects: May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain
Skin contact	Wash with plenty of soap and water for at least 15 minutes. Call a poison center or doctor if you feel unwell. Acute and delayed symptoms and effects: May cause skin irritation. Signs/symptoms may include localized redness, swelling, and itching.
Eye contact	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor
Ingestion	Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person
Most important symptoms/ effects, acute and delayed	Acute and delayed symptoms and effects: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

5. Fire-fighting measures

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	N/A
Specific hazards arising from the chemical	Hydrogen chloride gas, Sodium oxides. Nitrogen oxides (NOx) Sodium oxides
Special protective equipment/ precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/ instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Not a flammable material

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protection recommended in Section 8. As an immediate precautionary measure, isolate spill or leak area in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate enclosed areas.
Methods and materials for containment and cleaning up	Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. For precautions see section 2.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed in a dry and well-ventilated place. Opened containers must be carefully resealed and kept upright to prevent leakage.

8. Exposure controls/personal protection

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Formamide	PEL-TWA (Inhalation)	10 ppm (18mg/m ³) (skin)	Cal/OSHA
	REL-TWA (Inhalation)	10 ppm (15 mg/m ³)	NIOSH
	TLV® (Inhalation)	10 ppm (skin)	ACGIH

Appropriate engineering controls Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment

Eye/face protection	Safety glasses if there is a splash hazard. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear suitable protective clothing.
Respiratory protection	Not required under normal use conditions. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.
Thermal hazards	No data available.
General hygiene considerations	When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Do not let product enter drains

9. Physical and chemical properties

Appearance

Physical state	Clear Liquid
Color	Pink
Odor	No data available
pH	
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	Not applicable
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Solubility (water)	Soluble

Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No data available.
Conditions to avoid	Avoid exposure to heat and sources of ignition.. Avoid contact with incompatible materials.
Incompatible materials	FORMAMIDE: Bases, Oxidizing agents, Hydrogen peroxide, Iodine, Pyridine, Sulphur oxides
Hazardous decomposition products	No data available

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.
Skin contact	Prolonged skin contact may cause temporary irritation.
Eye contact	No data available
Ingestion	May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea
Symptoms related to the physical, chemical and toxicological characteristics	No data available

Information on toxicological effects

Acute toxicity Harmful if swallowed. May cause an allergic skin reaction.

Components	Species	Test Results
Formamide		
LD50 Oral -	Rat -	5,325 mg/kg
LC50 Inhalation -	Rat -	> 21 mg/l - 4 h
LD50 Skin -	Rabbit -	17,000 mg/kg
Oral -	Rat	
Result: Presumed human reproductive toxicant. Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).		
NOAEL Oral -	Rat -	40 mg/kg
Skin corrosion/irritation	May cause skin irritation. Signs/symptoms may include localized redness, swelling, and itching	
Serious eye damage/eye irritation	May cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.	
Respiratory or skin sensitization		
Respiratory sensitization	No data available	
Skin sensitization	No data available	
Germ cell mutagenicity	May cause harm to unborn child. Possible risk of impaired fertility	
Carcinogenicity	Possible cancer hazard. May cause cancer based on animal data	

IARC Monographs. Overall Evaluation of Carcinogenicity	Not listed
NTP Report on Carcinogens	Not listed.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not listed.
Reproductive toxicity	May cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	Liver, kidney, blood
Repeated dose toxicity	No data available.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	No data available
Additional effects	No data available.

12. Ecological information

Ecotoxicity	Components, Species and Test Results are listed below:
Formamide :	
Freshwater Algae: EC50: > 500 mg/L, 96h (Desmodesmus subspicatus) EC50: > 500 mg/L, 72h (Desmodesmus subspicatus)	
Freshwater Fish: LC50: = 9135 mg/L, 96h static (Brachydanio rerio) LC50: 4600 - 9300 mg/L, 96h static (Leuciscus idus)	
Microtox: EC50 > 10000 mg/L 17 h	
Water Flea: EC50: > 500 mg/L, 48h (Daphnia magna)	
Persistence and degradability	Persistence is unlikely
Bioaccumulative potential	No data available
Mobility in soil	Will likely be mobile in the environment due to its water solubility
Other adverse effects	No additional information is known
Log Pow	-0.82 (formamide)

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal

14. Transport information

DOT	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
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Superfund Amendments and Reauthorization Act of 1986 (SARA)

Fire Hazard - no
Pressure Hazard - No
Reactivity Hazard - No
Not listed.

SARA 302 Extremely hazardous substance

SARA 311/312 Hazardous chemical

Chronic Health Hazards

SARA 313 (TRI reporting)

Not regulated

US state regulations

Massachusetts Right To Know Components

Chemical name: Formamide

CAS number: 75-12-7

New Jersey Right To Know Components

Chemical name: Formamide

CAS number: 75-12-7

Pennsylvania Right To Know Components

Chemical name: Formamide

CAS number: 75-12-7

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130

Not regulated

Safe Drinking Water Act (SDWA)

Not regulated

US. California Proposition 65

This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

16. Other information, including date of preparation or last revision

Issue date

Revision date

Version #

NFPA ratings



Disclaimer

Sakura Finetek USA Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Appendix 1

List of Genemed ASR prediluted ISH probes

Abbr. Industrial known names for easy search

Product codes	Product identifiers	FDA Classification	Formats available	Abbr.
70-0027-15	Genemed® CISH Kappa Probe	ASR	P	Kappa
70-0028-15	Genemed® CISH Lambda Probe	ASR	P	Lambda
70-0029-15	Genemed® CISH EBER Probe	ASR	P	EBER
70-0030-15	Genemed® CISH mRNA Positive Control Probe	ASR	P	CISH Pos Control
70-0031-15	Genemed® CISH mRNA Negative Control Probe	ASR	P	CISH Neg Control