

SAFETY DATA SHEET

1. Identification

Product identifier CNTOP Pigment ink Yellow
Other means of identification Not available
Recommended use Ink
Recommended restrictions Industrial Use Only
Manufacturer information NIPPON KAYAKU AMERICA, INC.
101 Metro Drive, Suite 375
San Jose CA 95110
United States
Phone number +1-408-878-6173
Emergency phone number +1-408-878-6173

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Sensitization, skin Category 1
Environmental hazards Not classified.
OSHA defined hazards Not classified.

Label elements



Signal word Warning
Hazard statement May cause an allergic skin reaction.
Precautionary statement
Prevention Avoid breathing mist or vapor. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves.
Response If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.
Storage Not available.
Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC) None known.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
GLYCERIN		56-81-5	18
2,2',2''-Nitrilotriethanol		102-71-6	0.4

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation develops and persists.
Eye contact Rinse with water. Get medical attention if irritation develops and persists.
Ingestion Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.
Most important symptoms/effects, acute and delayed May cause an allergic skin reaction. Dermatitis. Rash.

Indication of immediate medical attention and special treatment needed

Keep victim under observation. Symptoms may be delayed.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures**Suitable extinguishing media**

Alcohol resistant foam. Dry powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

Move containers from fire area if you can do so without risk.

6. Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Use water spray to reduce vapors or divert vapor cloud drift.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage**Precautions for safe handling**

Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry place out of direct sunlight. Keep container tightly closed. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection**Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value	Form
GLYCERIN (CAS 56-81-5)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

US. ACGIH Threshold Limit Values

Components	Type	Value
2,2',2''-Nitrilotriethanol (CAS 102-71-6)	TWA	5 mg/m3

Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles).

Skin protection**Hand protection**

Impervious gloves.

Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection	Mist respirator, include single use respirator
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	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. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Color	Yellow.
Odor	Slight.
Odor threshold	Not available.
pH	7 - 10
Melting point/freezing point	Not available.
Initial boiling point and boiling range	> 212 °F (> 100 °C)
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Specific gravity	Not available.
Solubility(ies)	
Solubility (water)	dispersible in water
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	< 15 mPa·s @25°C
Other information	
Density	1.05 - 1.15 g/cm ³ @25°C
Surface tension	25 - 35 mN/m @25°C

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 dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	If product is burned hazardous gases such as oxides of carbon and nitrogen and various hydrocarbons may be produced.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
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Skin contact May cause an allergic skin reaction.

Eye contact Not available.

Ingestion Not available.

Symptoms related to the physical, chemical and toxicological characteristics May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
2,2',2''-Nitrilotriethanol (CAS 102-71-6)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	8 g/kg
GLYCERIN (CAS 56-81-5)		
Acute		
Dermal		
LD50	Rabbit	> 18700 mg/kg
Oral		
LD50	Mouse	26000 mg/kg
	Rat	27200 mg/kg

Skin corrosion/irritation Not available.

Serious eye damage/eye irritation Not available.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity Not available.

Carcinogenicity Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

2,2',2''-Nitrilotriethanol (CAS 102-71-6) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity Not available.

Specific target organ toxicity - single exposure Not available.

Specific target organ toxicity - repeated exposure Not available.

Aspiration hazard Not available.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity

Components	Species	Test Results
2,2',2''-Nitrilotriethanol (CAS 102-71-6)		
Aquatic		
<i>Acute</i>		
Algae	EC50	Green algae (<i>Scenedesmus subspicatus</i>) 169 mg/l, 96 hours

Components		Species	Test Results
Crustacea	EC50	Daphnia magna	1386 mg/l, 24 hours
	LC50	Daphnia magna	739 - 2038 mg/l, 24 hours
Fish	LC50	Pimephales promelas	1800 - 11800 mg/l, 96 hours
GLYCERIN (CAS 56-81-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	> 153000 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	51000 - 57000 mg/l, 96 hours

Persistence and degradability	Not available.
Bioaccumulative potential	Not available.
Mobility in soil	No data available for this product.
Other adverse effects	Not available.

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.
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 regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as 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.
CERCLA Hazardous Substance List (40 CFR 302.4)	Not Listed.
US EPCRA (SARA Title III) Section 302 - Extremely Hazardous Substance: Listed substance	Not Listed.
US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration	Not Listed.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not regulated.
US EPCRA (SARA Title III) Section 304 Emergency release notification	Not Listed.
Other federal regulations	
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List	Not Listed.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)	Not Listed.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

GLYCEROL MIST, RESPIRABLE FRACTION (CAS 56-81-5) Other Flavoring Substances with OSHA PEL's

US state regulations California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not Listed.

US. Massachusetts RTK - Substance List

GLYCERINE MIST (CAS 56-81-5)
TRIETHANOLAMINE (CAS 102-71-6)

US. New Jersey Worker and Community Right-to-Know Act

GLYCERIN (CAS 56-81-5)
TRIETHANOLAMINE (CAS 102-71-6)

US. Pennsylvania Worker and Community Right-to-Know Law

2,2',2"-Nitrilotriethanol (CAS 102-71-6)
GLYCERIN (CAS 56-81-5)

US. Rhode Island RTK

GLYCEROL(GLYCERIN MIST) (CAS 56-81-5)
TRIETHANOLAMINE (CAS 102-71-6)

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

Issue date 10-24-2018

References ACGIH
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
HSDB® - Hazardous Substances Data Bank
IARC Monographs. Overall Evaluation of Carcinogenicity

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available. This product is intended for industrial use only. Should it ever be applied for medical or other purposes, this is completely the responsibility of the purchaser. Ingesting or injecting this product or using it in such a manner that some of it might remain within the body is forbidden. Do not do this under any circumstances. This information is based upon the latest data available to us, but should not be read as a guarantee of the contents, physical properties or danger and harmfulness levels. Since all chemicals may have hitherto unknown deleterious properties, care should always be taken during use. It is the responsibility of every user to establish the necessary safety precautions before employment. In addition, the present information is intended for normal usage; however, if special usage is contemplated, then the appropriate safety precautions and application conditions should be carefully prepared.