

SAFETY DATA SHEET

Gatten® CA

Section 1. Identification

GHS product identifier	: Gatten® CA
Other means of identification	: Active ingredient: Common name: Flutianil Chemical Name: (2Z)-{[2-Fluoro-5-(trifluoromethyl)phenyl]sulfanyl}[3-(2-methoxyphenyl)-1,3-thiazolidin-2-ylidene]acetonitrile
Product use	: Fungicide. Emulsifiable concentrate (EC).
Supplier's details	: Nichino America Inc 4550 Linden Hill Road, Suite 501 Wilmington, DE 19808 United States Telephone number: +1 302-636-9001
e-mail address of person responsible for this SDS	: Not available.
Emergency telephone number (with hours of operation)	: In case of fire or spill: (800) 424-9300 (24 hours per day) For international shipments: (703) 527-3887 (24 hours per day) For emergency health and safety inquiries: (800) 348-5832 (24 hours per day)

Section 2. Hazards identification

OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	: FLAMMABLE LIQUIDS - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 ASPIRATION HAZARD - Category 1

GHS label elements

Hazard pictograms

:

**Signal word**

: Danger

Hazard statements: Combustible liquid.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause respiratory irritation.
May damage fertility or the unborn child.

Precautionary statements

Section 2. Hazards identification

Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid breathing dust or mist. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.
Response	: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to do so by a poison control center or doctor. DO NOT give anything to an unconscious person. IF ON SKIN: Wash with plenty of water for 15-20 minutes. Call a poison control center or a doctor for treatment advice. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse. IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice. If eye irritation persists: Get medical advice or attention.
Storage	: Store locked up. Store in a dry, cool and well-ventilated area. Keep container tightly closed. Keep cool.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified	: None known.
Hazards identified when used	: No known significant effects or critical hazards.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: Active ingredient: Common name: Flutianil Chemical Name: (2Z)-{[2-Fluoro-5-(trifluoromethyl)phenyl]sulfanyl}[3-(2-methoxyphenyl)-1,3-thiazolidin-2-ylidene]acetonitrile

Ingredient name	Synonyms	%	Identifiers
N-methyl-2-pyrrolidone		30 - 60	872-50-4
Poly(oxy-1,2-ethanediyl), α-[2,4,6-tris(1-phenylethyl)phenyl]-ω-hydroxy-		10 - 30	99734-09-5
Flutianil		4.7	958647-10-4

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
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Section 4. First aid measures

- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : May cause respiratory irritation.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

Section 4. First aid measures

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam. Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
halogenated compounds
hydrogen fluoride

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

- Remark** : Combustible liquid.

- Remark (Explosibility)** : Not considered to be a product presenting a risk of explosion.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not swallow. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.

- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
N-methyl-2-pyrrolidone	OARS WEEL (United States, 9/2024) Absorbed through skin. TWA 8 hours: 15 ppm. STEL 15 minutes: 120 mg/m ³ . STEL 15 minutes: 30 ppm. TWA 8 hours: 60 mg/m ³ . CAL OSHA PEL (United States, 5/2018) Absorbed through skin. TWA 8 hours: 4 mg/m ³ . TWA 8 hours: 1 ppm.
Poly(oxy-1,2-ethanediyl), α-[2,4,6-tris(1-phenylethyl)phenyl]-ω-hydroxy-	None.
Flutianil	None.

Biological exposure indices

Section 8. Exposure controls/personal protection

Ingredient name	Exposure indices
N-methyl-2-pyrrolidone	ACGIH BEI (United States, 1/2024) BEI: 100 mg/l, 5-hydroxy-N-methyl-2-pyrrolidone [in urine]. Sampling time: end of shift.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Recommended: Chemical-resistant gloves made of barrier laminate or butyl rubber ≥14 mils.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Recommended: Ensure an MSHA/NIOSH-approved respirator or equivalent is used.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid.

Color : Yellow. homogenous

Odor : Sweet. Fruity. [Slight]
Not reported

Section 9. Physical and chemical properties

Odor threshold	:	
pH	:	4.87 [Conc. (% w/w): 1%]
Melting point/freezing point	:	Not reported
Boiling point or initial boiling point and boiling range	:	Not reported
Flash point	:	91°C (195.8°F) ± 2°C
Evaporation rate	:	Not applicable.
Flammability	:	Combustible liquid.
Lower and upper explosion limit/flammability limit	:	Not applicable
Vapor pressure	:	Not reported
Relative vapor density	:	Not applicable.
Relative density	:	1.08 g/cm ³ at °C: 20 ± 0.5
Solubility in water	:	Emulsifiable in water
Partition coefficient: n-octanol/water	:	Not determined
Auto-ignition temperature	:	286°C (546.8°F) ± 5°C
Decomposition temperature	:	Not determined.
Viscosity	:	5.45 mm ² /s [20 °C ± 0.5 °C]
Explosive properties	:	Not considered to be a product presenting a risk of explosion.
Oxidizing properties	:	No oxidizing ingredients present.
<u>Particle characteristics</u>		
Median particle size	:	Not applicable.

Section 10. Stability and reactivity

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	The product is stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	:	Strong oxidizing materials, cationic surfactants, acids, halogenated compounds
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Section 11. Toxicological information

Product/ingredient name	Result and Species	Dose [Exposure]	Remarks
Gatten® CA	Oral - Mammal - species unspecified - LD50	>5000 mg/kg	-
	Dermal - Mammal - species unspecified - LD50	>5000 mg/kg	-
	Inhalation - Mammal - species unspecified - LC50 Vapor	4.82 mg/l [1 hours]	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Irritation/Corrosion

Conclusion/Summary

Skin : Causes skin irritation.
Eyes : Causes serious eye irritation.
Respiratory : May cause respiratory irritation.

Respiratory or skin sensitization

Conclusion/Summary

Skin : May cause an allergic skin reaction.
Respiratory : Based on available data, the classification criteria are not met.

Mutagenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Reproductive toxicity

Product/ingredient name	Result	Species and Route of exposure	Dose [Exposure]	Remarks
N-methyl-2-pyrrolidone	<u>Maternal toxicity</u> : Positive <u>Fertility effects</u> : Positive <u>Developmental</u> : Positive	Rat - Unreported	-	-

Conclusion/Summary : Suspected of damaging fertility or the unborn child.

Teratogenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Gatten® CA	Category 3	-	Respiratory tract irritation
N-methyl-2-pyrrolidone	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Name	Result
Gatten® CA	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Section 11. Toxicological information

Eye contact	: Causes serious eye irritation.
Inhalation	: May cause respiratory irritation.
Skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Ingestion	: May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing reduced fetal weight increase in fetal deaths skeletal malformations
Skin contact	: Adverse symptoms may include the following: irritation redness reduced fetal weight increase in fetal deaths skeletal malformations
Ingestion	: Adverse symptoms may include the following: nausea or vomiting reduced fetal weight increase in fetal deaths skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Long term exposure

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Potential chronic health effects

Not available.

Conclusion/Summary	: Based on available data, the classification criteria are not met.
General	: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: May damage fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result [Exposure]	Species	Remarks
Gatten® CA	Acute - LC50 1.7 mg/l [96 hours]	Fish - <i>Oncorhynchus mykiss</i>	-
	Acute - LC50 5.5 mg/l [96 hours]	Fish - <i>Cyprinus carpio</i>	-
	Acute - EC50 1.1 mg/l [48 hours]	Daphnia - <i>Daphnia magna</i>	-
	Acute - EC50 4.9 mg/l [72 hours]	Algae - <i>Raphidocelis subcapitata</i>	-

Conclusion/Summary : Very toxic to aquatic life with long lasting effects.

Persistence and degradability

Conclusion/Summary : There are no data available on the mixture itself.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Flutianil	-	340 to 380	Low

Mobility in soil

Soil/Water partition coefficient : Not available.

Mobility : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Pesticide Disposal.: Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture or rinsale is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	NA1993	UN3082	UN3082	UN3082	UN3082	UN3082
UN proper shipping name	Combustible liquid, n.o.s. (Flutianil)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Flutianil)	SUBSTANCIA LÍQUIDA PELIGROSA PARA EL MEDIO AMBIENTE, N. E.P. (Flutianil)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Flutianil)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Flutianil)	Environmentally hazardous substance, liquid, n.o.s. (Flutianil)
Transport hazard class(es)	Combustible liquid.	9	9	9	9	9
Label						
Packing group	III	III	III	III	III	III
Environmental hazards	No.	Yes.	Yes.	Yes.	Marine Pollutant: Yes	Yes.

Additional information

DOT Classification

: Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials.

Limited quantity Yes.

Packaging instruction Exceptions: 150. Non-bulk: 203. Bulk: 241.

Quantity limitation Passenger aircraft/rail: 60 L. Cargo aircraft: 220 L.

Special provisions 148, IB3, T1, TP1

TDG Classification

: Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9), 2.7 (Marine pollutant mark). Non-bulk packages of this product are not regulated as dangerous goods when transported by road or rail.

Explosive Limit and Limited Quantity Index 5

Special provisions 16, 99

Mexico Classification

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Special provisions 274, 331, 335, 375

ADR/RID

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Hazard identification number 90

Limited quantity 5 L

Special provisions 274, 335, 601, 375, 650

Tunnel code (-)

IMDG

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Emergency schedules F-A, S-F

Special provisions 274, 335, 375, 969

Section 14. Transport information

IATA : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.
Quantity limitation Passenger and Cargo Aircraft: 450 L. Packaging instructions: 964. Cargo Aircraft Only: 450 L. Packaging instructions: 964. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y964.
Special provisions A97, A158, A197, A215

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not intended.

Section 15. Regulatory information

U.S. Federal regulations

TSCA 6 proposed risk management: N-methyl-2-pyrrolidone

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

EPA Registration Number: 11581-6-71711

WARNING

Causes substantial but temporary eye injury. DO NOT get in eyes or on clothing. Wear protective eyewear (goggles, face shield, safety glasses). Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

TSCA 12(b) - Chemical export notification

Name	One time notification		Annual notification		
	4	5	5(f)	6	7
n-methylpyrrolidone	Not listed	Not listed	Not listed	Listed	Not listed

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Section 15. Regulatory information

Classification : FLAMMABLE LIQUIDS - Category 4
 SKIN IRRITATION - Category 2
 EYE IRRITATION - Category 2A
 SKIN SENSITIZATION - Category 1
 TOXIC TO REPRODUCTION - Category 1B
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
 ASPIRATION HAZARD - Category 1

Composition/information on ingredients

Name	%	Classification
N-methyl-2-pyrrolidone	30 - 60	FLAMMABLE LIQUIDS - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

SARA 313


	Product name	CAS number	%
Form R - Reporting requirements	N-methyl-2-pyrrolidone	872-50-4	30 - 60
Supplier notification	N-methyl-2-pyrrolidone	872-50-4	30 - 60

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: 1-METHYL-2-PYRROLIDONE
New York : None of the components are listed.
New Jersey : The following components are listed: 1-METHYL-2-PYRROLIDONE
Pennsylvania : The following components are listed: 2-PYRROLIDINONE, 1-METHYL-

California Prop. 65

 **WARNING:** This product can expose you to N-methylpyrrolidone, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
N-methylpyrrolidone	-	Yes.

EPA PFAS Compilation from Comptox

Not listed.

TSCA 8(a)7 - One-time Reporting PFAS

Not listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

Section 15. Regulatory information

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

OECD Comprehensive Global PFAS Database

Not listed.

Inventory list

Eurasian Economic Union : Russian Federation inventory: All components are listed or exempted.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 4	On basis of test data
SKIN IRRITATION - Category 2	Calculation method
EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
TOXIC TO REPRODUCTION - Category 1B	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
ASPIRATION HAZARD - Category 1	Expert judgment

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Key to abbreviations : ADR = Agreement concerning the International Carriage of Dangerous Goods by Road
 ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 DOT = Department of Transportation
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
 SGG = Segregation Group
 TDG = Transportation of Dangerous Goods
 UN = United Nations

References : Not available.

🔵 Indicates information that has changed from previously issued version.

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