

Conforms to ANSI Z400.5-2004 Standard (United States, Canada).

Material Safety Data Sheet



NovaHol

1. Product and company identification

Product name : NovaHol
Material uses : Hard surface cleaner / Degreasers.
Supplier/Manufacturer : Micronova Manufacturing Inc.
 3431 West Lomita Boulevard
 Torrance, CA 90505
 Tel : (310) 784-6990

In case of emergency : CHEMTREC, U.S. : (800) 424-9300 International: (703) 527-3887

2. Hazards identification

Physical state : Liquid.
Odor : Alcohol-like.
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Emergency overview : WARNING!
 FLAMMABLE LIQUID AND VAPOR. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.
 Flammable liquid. Irritating to eyes, respiratory system and skin. Keep away from heat, sparks and flame. Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Avoid contact with eyes, skin and clothing. Contains material that can cause target organ damage. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Potential acute health effects

Inhalation : Irritating to respiratory system.
Ingestion : No known significant effects or critical hazards.
Skin : Irritating to skin.
Eyes : Irritating to eyes.

Potential chronic health effects

Chronic effects : Contains material that can cause target organ damage.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.
Target organs : Contains material which causes damage to the following organs: upper respiratory tract, skin, eye, lens or cornea.
 Contains material which may cause damage to the following organs: central nervous system (CNS).

Over-exposure signs/symptoms

Inhalation : Adverse symptoms may include the following:
 respiratory tract irritation
 coughing
Ingestion : No specific data.

2. Hazards identification

- Skin** : Adverse symptoms may include the following:
irritation
redness
- Eyes** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (section 11)

3. Composition/information on ingredients

United States

Name	CAS number	%
Isopropyl alcohol	67-63-0	10 - 24

Canada

Name	CAS number	%
Isopropyl alcohol	67-63-0	10 - 24

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

4. First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 20 minutes while removing contaminated clothing and shoes. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- 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.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5 . Fire-fighting measures

Flammability of the product : Flammable.

Extinguishing media

Suitable : Use dry chemical, CO₂, water spray (fog) or foam.

Not suitable : Do not use water jet.

Special exposure hazards : Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

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.

6 . Accidental release measures

Personal precautions : 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 (see section 8).

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 for cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. 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. 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 (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7 . Handling and storage

Handling : Put on appropriate personal protective equipment (see section 8). 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. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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 non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and

7 . Handling and storage

equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage

- : 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. 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.

8 . Exposure controls/personal protection

United States

Product name

Isopropyl alcohol

Exposure limits

ACGIH TLV (United States, 1/2006).

STEL: 400 ppm 15 minute(s).

TWA: 200 ppm 8 hour(s).

NIOSH REL (United States, 12/2001).

STEL: 1225 mg/m³ 15 minute(s).

TWA: 980 mg/m³ 10 hour(s).

OSHA PEL (United States, 11/2006).

TWA: 980 mg/m³ 8 hour(s).

Canada

Product name

Isopropyl alcohol

Exposure limits

ACGIH TLV (United States, 1/2006).

STEL: 400 ppm 15 minute(s).

TWA: 200 ppm 8 hour(s).

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures

- : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures

- : 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.

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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Eyes

- : Safety glasses.

Skin

- : Lab coat.

Respiratory

- : A respirator is not needed under normal and intended conditions of use.

Hands

- : Natural rubber (latex).

Personal protective equipment (Pictograms)

:

8 . Exposure controls/personal protection



HMIS Code/Personal protective equipment : B

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.

9 . Physical and chemical properties

Physical state : Liquid.
Flash point : Closed cup: 25.60°C (78°F) [Pensky-Martens.]
Color : Colorless.
Odor : Alcohol-like.
Relative density : 0.8
Solubility : Miscible in water.

10 . Stability and reactivity

Stability : The product is stable.
Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization 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.
Materials to avoid : Reactive or incompatible with the following materials:
 oxidizing materials
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Conditions of reactivity : Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts.

11 . Toxicological information

Acute toxicity

Product/ingredient name	Species	Dose	Result	Exposure
isopropyl alcohol	Rabbit	12800 mg/kg	LD50 Dermal	-
	Rat	2735 mg/kg	LD50 Intraperitoneal	-
	Rat	1088 mg/kg	LD50 Intravenous	-
	Rat	5045 mg/kg	LD50 Oral	-
	Rat	5000 mg/kg	LD50 Oral	-

Inhalation : Irritating to respiratory system.
Ingestion : No known significant effects or critical hazards.
Skin : Irritating to skin.
Eyes : Irritating to eyes.

Carcinogenicity Classification

11 . Toxicological information

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Isopropyl alcohol	A4	3	-	-	-	None.

12 . Ecological information

Environmental effects : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Test	Species	Exposure	Result
Isopropyl alcohol	Behavior	Fish	48 hours	Acute EC50 10000 mg/L
	Mortality	Fish	96 hours	Acute LC50 10400 mg/L
	Mortality	Fish	96 hours	Acute LC50 11130 mg/L
	Mortality	Fish	96 hours	Acute LC50 9640 mg/L
	Mortality	Fish	96 hours	Acute LC50 6550 mg/L
	Mortality	Fish	96 hours	Acute LC50 >1400 mg/L

13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14 . Transport information

Regulatory information	Proper shipping name	Class	UN number	PG	Label
UN / IMDG / IATA Classification	Consumer commodity				
DOT Classification	ORM-D / Consumer commodity				

15 . Regulatory information

United States

HCS Classification : Flammable liquid
Irritating material
Target organ effects

U.S. Federal regulations : TSCA 8(a) PAIR: Nonylphenoxydiglycol
United States inventory (TSCA 8b): All components are listed or exempted.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: Isopropyl alcohol

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:

Isopropyl alcohol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

15. Regulatory information

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	: Isopropyl alcohol	67-63-0	10 - 30

Supplier notification	: Isopropyl alcohol	67-63-0	10 - 30
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SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

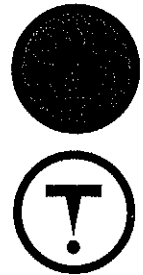
State regulations

- : **Connecticut Carcinogen Reporting:** None of the components are listed.
- : **Connecticut Hazardous Material Survey:** None of the components are listed.
- : **Florida substances:** None of the components are listed.
- : **Illinois Chemical Safety Act:** None of the components are listed.
- : **Illinois Toxic Substances Disclosure to Employee Act:** None of the components are listed.
- : **Louisiana Reporting:** None of the components are listed.
- : **Louisiana Spill:** None of the components are listed.
- : **Massachusetts Spill:** None of the components are listed.
- : **Massachusetts Substances:** The following components are listed: Isopropyl alcohol
- : **Michigan Critical Material:** None of the components are listed.
- : **Minnesota Hazardous Substances:** None of the components are listed.
- : **New Jersey Hazardous Substances:** The following components are listed: Isopropyl alcohol
- : **New Jersey Spill:** None of the components are listed.
- : **New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.
- : **New York Acutely Hazardous Substances:** None of the components are listed.
- : **New York Toxic Chemical Release Reporting:** None of the components are listed.
- : **Pennsylvania RTK Hazardous Substances:** The following components are listed: Isopropyl alcohol
- : **Rhode Island Hazardous Substances:** None of the components are listed.

Canada

WHMIS (Canada)

- : Class B-2: Flammable liquid
- : Class D-2B: Material causing other toxic effects (Toxic).



Canadian lists

- : **CEPA Toxic substances:** None of the components are listed.
- : **Canadian ARET:** None of the components are listed.
- : **Canadian NPRI:** The following components are listed: Isopropyl alcohol
- : **Alberta Designated Substances:** None of the components are listed.
- : **Ontario Designated Substances:** None of the components are listed.
- : **Quebec Designated Substances:** None of the components are listed.

Canada inventory : **Canada inventory:** All components are listed or exempted.

15 . Regulatory information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations

International lists : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

16 . Other information

Label requirements : FLAMMABLE LIQUID AND VAPOR. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

Hazardous Material Information System (U.S.A.) :

HAZARD RATINGS

Health	*	1
Fire hazard		2
Physical Hazard		0
Personal protection		B

4- Extreme
3- Serious
2- Moderate
1- Slight
0- Minimal

See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) :



References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005.

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