

Bijlage C11 Productbladen goedgekeurde cleanroom producten t.b.v. Van der Waalsweg / Delft**PRODUCT BULLETIN****NOVACLEAN™**
Cleanroom Detergent**FEATURES**

- 0 Filtered to 0.1 Microns
- 0 No Mobile Ions
- 0 Low Non Volatile Residue
- 0 Free Rinsing
- 0 Concentrated Formula
- 0 Bio-Degradable

NovaClean is a detergent specifically designed for cleanroom applications. The unique formulation has sodium, potassium and chloride levels traceable in parts per billion only. The detergent is filtered to 0.1 microns to cope with the reduced geometries prevalent in today's cleanroom industry. NovaClean contains no hazardous chemicals. Having no mobile ions NovaClean will not generate a static charge.

Easy and economical to use, NovaClean Floor Clean is a concentrate which will yield 64 to 128 gallons per gallon of concentrate. NovaClean Lab & Glass Clean is a ready to use formulation for personal workstations and glass panels. Both formulations are available in quart and gallon bottles.

Directions for Use:

NovaCleo Floor Clean

For Floors:

Mix 2oz of NovaClean concentrate with 1 gallon of de-ionized or process water (distilled, RO, WFI).

For Walls and Ceilings:

Mix 1 oz of NovaClean concentrate with 1 gallon of de-ionized or process water (distilled, RO, WFI).

NovaCleo Lab & Glass Clean

For counter tops and personal work areas:

Spray or pour desired amount on areas to be cleaned. Wipe down following cleanroom protocol.

For optimum cleaning efficiency use with a Micronova cleanroom mop, wipe or sponge

For use on:

Cleanroom and conductive flooring

Stainless Steel

Formica®

Polypropylene

Acrylic

Glass and Plexiglas®

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

Material Safety Data Sheet

NovaClean Detergent

1. Product and company identification

Product name	: NovaClean, FloorClean, - #NC1-Q, NC1-G, NC1-5G
Material uses	: Detergent, Floor Cleaner
Supplier/Manufacturer	: Micronova Mfg., Inc. 3431 W. Lomita Blvd. Torrance, CA. 90505 Tel: 310-784-6990 Fax: 310-784-6980
In case of emergency	: CHEMTREC, U.S.: (800) 424-9300 International (703) 527-3887

2. Hazards identification

Physical state	: Liquid.
OSHA/HCS status	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
Emergency overview	: NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED. No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.
Routes of entry	: Dermal contact. Eye contact. Inhalation. Ingestion.
Potential acute health effects	
Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Skin	: No known significant effects or critical hazards.
Eyes	: No known significant effects or critical hazards.
Potential chronic health effects	
Chronic effects	: No known significant effects or critical hazards.
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.
Over-exposure signs/symptoms	
Inhalation	: No specific data.
Ingestion	: No specific data.
Skin	: No specific data.
Eyes	: No specific data.
Medical conditions aggravated by over-exposure	: None known.
See toxicological information (section 11)	

NovaClean Detergent

3 . Composition/information on ingredients

Name	CAS number	%
No hazardous ingredient		

There are no 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 if symptoms occur.
Skin contact	: In case of contact, immediately flush skin with plenty of water. Get medical attention if symptoms occur.
Inhalation	: Move exposed person to fresh air. Get medical attention if symptoms occur.
Ingestion	: Wash out mouth with water. Get medical attention if symptoms occur.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training.
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	: Non-flammable.
Extinguishing media	
Suitable	: Use an extinguishing agent suitable for the surrounding fire.
Not suitable	: None known.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds
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	: Do not touch or walk through spilled material. 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	: Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

NovaClean Detergent

6 . Accidental release measures

- Large spill** : 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). 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 ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.
- Storage** : Store in accordance with local regulations. 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. Keep container tightly closed and sealed until ready for use.

8 . Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : None required. Use in a well ventilated area.

- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

- 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.

Personal protection

- Eyes** : Safety glasses.

- Skin** : Lab coat.

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

- Hands** : Disposable vinyl gloves.

Personal protective equipment (Pictograms)



- HMIS Code/Personal protective equipment** : A

- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

NovaClean Detergent

9 . Physical and chemical properties

Physical state	: Liquid.
Color	: Clear.
pH	: 8.2
Boiling/condensation point	: 99°C (210.2°F)
Melting/freezing point	: 0°C (32°F)
Relative density	: 1.025
Vapor pressure	: 2.3 kPa (17.1 mm Hg)
Vapor density	: 0.82 [Air = 1]
Evaporation rate	: 0.7 (Butyl acetate. = 1)

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	: No specific data.
Materials to avoid	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 . Toxicological information

Acute toxicity	
Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Skin	: No known significant effects or critical hazards.
Eyes	: No known significant effects or critical hazards.

12 . Ecological information

Environmental effects	: No known significant effects or critical hazards.
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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.
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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.

NovaClean Detergent

14 . Transport information

AERG : Not applicable.

Regulatory information
DOT/ TDG / IMDG/ IATA : Not regulated.

15 . Regulatory information

United States
HCS Classification : Not regulated.

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: No products were found.

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.

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.

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: None of the components are listed.
Michigan Critical Material: None of the components are listed.
Minnesota Hazardous Substances: None of the components are listed.
New Jersey Hazardous Substances: None of the components are listed.
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: None of the components are listed.
Rhode Island Hazardous Substances: None of the components are listed.

United States inventory (TSCA 8b) : United States inventory (TSCA 8b): All components are listed or exempted.

Canada
WHMIS (Canada) : Not controlled under WHMIS (Canada).

Canadian lists : CEPA Toxic substances: The following components are listed: Nonylphenoxydiglycol
Canadian ARET: None of the components are listed.
Canadian NPRI: The following components are listed: Nonylphenoxydiglycol
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.

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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 : NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

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

Health	0
Fire hazard	0
Physical Hazard	0
Personal protection	A

HAZARD RATINGS

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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Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

www.micronova-mfg.com

Detergents & Cleaners



NovaClean™ Lab & Glass Cleaner

Cleanroom Detergent for Work Stations and Glass

A ready-to-use formulation which mirrors the fine filtration and low ionic properties of the NovaClean Floor Cleaner. NovaClean Lab & Glass Cleaner offers a viable non-solvent option for cleaning acrylic, stainless steel and painted surfaces.

NovaClean Lab & Glass Cleaner is available in an easy-to-use quart size spray bottle and can be applied directly to the surface being cleaned. Gallon refill bottles are also available.

- Filtered to 0.1 Microns
- Low Sodium
- Bio-Degradable
- Ready-To-Use

Part No.	Description
NC2-Q	Quart
NC2-G	Gallon

MegaClean™ Heavy-Duty Cleaner

The Safer Alternative to Toxic and Flammable Solvents

MegaClean Heavy-Duty Cleaner is a solution which offers an effective alternative to toxic and flammable solvent-based cleaners, such as acetone and isopropyl alcohol.

The non-flammable, bio-degradable formulation is an ideal spot cleaning solution and easily removes grease, adhesives and photo-resist stains from most surfaces. Filtered to 0.1 microns, it is geared to semiconductor, electronics and aerospace operations where regulations on ozone-depleting compounds have led engineers to look for effective replacements.

- Filtered to 0.1 Microns
- Non-Flammable
- Bio-Degradable
- Water Soluble
- Effective at Low Concentrations

Part No.	Description
MC1-Q	Quart
MC1-G	Gallon
MC1-5G	5 Gallon
MC1-55G	55 Gallon
MC1-C20	Pre-Saturated Wipes, 20 Count Canister



MegaClean pre-saturated heavy-duty polypropylene wipes measure 10" x 10", contained in a resealable pop-top canister



SilSat™ Silicone Pre-Saturated Wipes

This polyester wipe is impregnated with a blend of medical grade silicone and IPA. The lubricated wipe does away with the need to use spray lubricants in sensitive and controlled environments. Will lubricate gaskets and seals in isolators, refrigerators and cabinets in aseptic processing and support areas. A valuable tool for cleaning and maintenance of mechanized equipment in critical areas. SilSat is also an economical alternative to spray lubricants in medical device and mold release applications. Gamma irradiated.

Part No.	Description
SSWG-011R	8 Count Pack

Key To Usage By
Primary Industry

Semiconductor/
Electronic

Pharmaceutical/
Biotech


Lab / Research



Hospital

Detergents & Cleaners

Note: Micronova's Detergents & Cleaners are not disinfectants. Formulated for the Semiconductor/Electronics industries, their fine filtration and purity lend themselves to applications in the Pharmaceutical and Biotech industries as detergents in 'neutral cleans' when a kill rate is not required.



NovaClean™ Floor Cleaner

Cleanroom Detergent for Floors, Walls and Ceilings

NovaClean Floor Cleaner is an all-purpose cleanroom cleaner which is filtered down to 0.1 microns. At the suggested dilution, the formulation can claim sodium and potassium levels detectable only in parts per billion. The low-ionic formulation will not generate a static charge. With little or no residue build-up, the cleaner will not affect the efficiency of conductive flooring.

Easy and economical to use, NovaClean Floor Cleaner is a concentrate which will yield 60 to 128 gallons of cleaner per gallon container.

- Filtered to 0.1 Microns
- Low Sodium
- Bio-Degradable
- Free Rinsing

Part No.	Description
NC1-Q	Quart
NC1-G	Gallon
NC1-SG	5 Gallon

I'm cleaning with DI Water or IPA – why should I use NovaClean?

Studies show that adding a small amount of surfactant to the cleaning process will break surface tension and remove more particles. NovaClean Floor Clean has a slight surfactant base and, with its extremely fine filtration, the assurance that you are not bringing more into the cleanroom than you are taking out.

NovaHol™ Cleanroom Cleaner

High Evaporation Rate for Quick Drying

This ready-to-use formulation offers the same fine filtration and low-ionic levels of NovaClean with the addition of isopropyl alcohol to speed drying time. With its extremely high evaporation rate, NovaHol is ideal for cleaning glass, acrylic, vinyl curtains and stainless steel surfaces.

NovaHol is available in an easy-to-use quart size spray bottle and can be applied directly to the surface being cleaned. Gallon refill bottles are also available.

- Filtered to 0.1 Microns
- Low Sodium
- Ready-To-Use
- Fast Drying

Part No.	Description
NH1-Q	Quart
NH1-G	Gallon



NovaHol™ Pre-Saturated Wipes

This melt-blown polypropylene wipe is saturated with the NovaHol blend of low ionic cleaner and IPA. Ideal for cleaning stainless steel fixtures, soft walls, curtains and cabinets. NovaHol works well on both glass and plexiglass exteriors – such as isolators and containment cabinets and will clean softwalls and cleanroom curtains. Limited alcohol content is proven to lower bio-burden on surfaces.

Part No.	Description
NHW-01	25 Count Pack