

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

- Trade name IGEPAL CO-987

1.2 Relevant identified uses of the substance or mixture and uses advised against

- no data available

1.3 Details of the supplier of the safety data sheet**Company**

Solvay USA Inc.,
NOVECARE
504 Carnegie Center
Princeton, NJ, 08540, US
Telephone Number: 800-973-7873

1.4 Emergency telephone

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT CONTACT: CHEMTREC 800-424-9300 within the United States and Canada, or 703-527-3887 for international collect calls.

SECTION 2: Hazards identification

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

2.1 Classification of the substance or mixture**HCS 2012 (29 CFR 1910.1200)**

- Not a hazardous product according to the OSHA Globally Harmonized System (GHS).

2.2 Label elements**HCS 2012 (29 CFR 1910.1200)**

- Not a hazardous product according to the OSHA Globally Harmonized System (GHS).

2.3 Other hazards which do not result in classification

- H413: May cause long lasting harmful effects to aquatic life.
- Slightly irritating to eyes and skin.
- No specific risk when handled in accordance with good occupational hygiene and safety practice.
- Does NOT present any particular fire hazard.
- Harmful or toxic vapors are released.
- Hazardous reactions may occur on contact with certain chemicals. (Refer to the list of incompatible materials section 10: "Stability-Reactivity").

SECTION 3: Composition/information on ingredients**3.1 Substance**

- Not applicable, this product is a mixture.

3.2 Mixture

PRCO90017803

Version : 2.01 / US (Z8)

www.solvay.com



- Chemical nature Aqueous solution of nonyl phenol ethoxylate

Hazardous Ingredients and Impurities

- No ingredients are hazardous.

Non Hazardous Ingredients and Impurities

Chemical name	Identification number CAS-No.	Concentration [%]
Alternative CAS #: 127087-87-0		
Nonylphenol, branched, ethoxylated	68412-54-4	70
Water	7732-18-5	30

SECTION 4: First aid measures**4.1 Description of first-aid measures****General advice**

- Show this material safety data sheet to the doctor in attendance.
- First responder needs to protect himself.
- Place affected apparel in a sealed bag for subsequent decontamination.

In case of inhalation

- Negligible or unlikely exposure pathways
- Move to fresh air in case of accidental inhalation of vapors.
- If symptoms persist, call a physician.

In case of skin contact

- Wash off immediately with plenty of water for at least 15 minutes.
- If a person feels unwell or symptoms of skin irritation appear, consult a physician.
- Remove contaminated clothing and shoes.
- Wash contaminated clothing before re-use.

In case of eye contact

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- If eye irritation persists, consult a physician.

In case of ingestion

- If victim is conscious:
- Rinse mouth with water.
- Keep at rest.
- Do not induce vomiting without medical advice.
- Do not leave the victim unattended.
- Vomiting may occur spontaneously
- Risk of product entering the lungs on vomiting after ingestion.
- Lay victim on side.
- Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed**Effects**

- Skin contact may aggravate existing skin disease

4.3 Indication of any immediate medical attention and special treatment needed**Notes to physician**

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.
- Treat symptomatically.
- There is no specific antidote available.

SECTION 5: Firefighting measures

Flash point > 200 °F (> 93 °C)
Pensky-Martens closed cup
Flammability class: Will burn

Autoignition temperature no data available

Flammability / Explosive limit no data available

5.1 Extinguishing media**Suitable extinguishing media**

- Dry chemical
- Carbon dioxide (CO₂)
- Foam

5.2 Special hazards arising from the substance or mixture**Specific hazards during fire fighting**

- Under fire conditions:
- Will burn

Hazardous combustion products:

- On combustion or on thermal decomposition (pyrolysis), releases:
- Carbon oxides

5.3 Advice for firefighters**Special protective equipment for fire-fighters**

- Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

Specific fire fighting methods

- Cool containers/tanks with water spray.

Further information

- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

- Avoid contact with the skin and the eyes.
- Keep away from flames and sparks.

- Remove all sources of ignition.
- Ventilate the area.
- Wear suitable protective equipment.
- For personal protection see section 8.

6.2 Environmental precautions

- Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.
- Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies

Risk Management Measures to control aqueous release

- Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Recovery

- Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
- Sweep up or vacuum up spillage and collect in suitable container for disposal.
- Never return spills in original containers for re-use.

Decontamination / cleaning

- Wash with plenty of water and detergent.
- Wash nonrecoverable remainder with large amounts of water.
- Recover the cleaning water for subsequent disposal.
- Decontaminate tools, equipment and personal protective equipment in a segregated area.

Disposal

- Dispose of in accordance with local regulations.

Methods for containment

- Keep in properly labeled containers.
- Keep in suitable, closed containers for disposal.

Additional advice

- Material can create slippery conditions.

6.4 Reference to other sections

- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 13. DISPOSAL CONSIDERATIONS

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Non-sparking tools should be used.
- Ensure all equipment is electrically grounded before beginning transfer operations.
- Handle in accordance with good industrial hygiene and safety practice.
- Avoid splashes.
- Avoid inhalation, ingestion and contact with skin and eyes.
- Avoid localized overheating.
- Vent drums while heating
- Mix thoroughly before use.

- Ethylene oxide may collect in container head space.
- Provide adequate ventilation.

Hygiene measures

- Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:
 - 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
 - 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
 - 3) Wash exposed skin promptly to remove accidental splashes or contact with material.
- Use clean, well maintained personal protection equipment.

7.2 Conditions for safe storage, including any incompatibilities**Technical measures/Storage conditions**

- Does not require any specific or particular measures.
- Keep container tightly closed in a dry and well-ventilated place.
- Keep away from incompatible materials to be indicated by the manufacturer
- Keep away from open flames, hot surfaces and sources of ignition.
- Keep away from direct sunlight.

Requirements for storage rooms and vessels

Recommended storage temperature: 59 - 120 °F (15 - 49 °C)

- Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.
- Low pressure steam or a water bath may be used to melt solidified material
- For further information, refer to section 10: "Stability and Reactivity."

7.3 Specific end use(s)

- no data available

SECTION 8: Exposure controls/personal protection

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters

- Contains no substances with occupational exposure limit values.

8.2 Exposure controls**Control measures****Engineering measures**

- Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures :
 - Effective exhaust ventilation system

Individual protection measures

Respiratory protection

- When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.
- No personal respiratory protective equipment normally required.

Hand protection

- Where there is a risk of contact with hands, use appropriate gloves
- Gloves must be inspected prior to use.
- Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Eye protection

- Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.
- Eye contact should be prevented through the use of:
 - Safety glasses with side-shields

Skin and body protection

- Protective suit
- Impervious clothing
- Footwear protecting against chemicals

Hygiene measures

- Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:
 - 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
 - 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
 - 3) Wash exposed skin promptly to remove accidental splashes or contact with material.
- Use clean, well maintained personal protection equipment.

Protective measures

- Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards, and/or risks that may occur during use.
- Ensure that eyewash stations and safety showers are close to the workstation location.
- Emergency equipment immediately accessible, with instructions for use.
- The protective equipment must be selected in accordance with current local standards and in cooperation with the supplier of the protective equipment.

SECTION 9: Physical and chemical properties

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

9.1 Information on basic physical and chemical properties**Appearance**

Form: viscous
Physical state: liquid
Color: clear

<u>Odor</u>	aromatic
<u>Odor Threshold</u>	no data available
<u>pH</u>	6.0 - 8.0 (10 % (m/v))
<u>Melting point/freezing point</u>	<u>Freezing point</u> : 45 - 64 °F (7 - 18 °C)
<u>Initial boiling point and boiling range</u>	> <u>Boiling point/boiling range</u> : 212 °F (100 °C) (760 mmHg (1,013.25 hPa))
<u>Flash point</u>	> 200 °F (> 93 °C) Pensky-Martens closed cup Flammability class: Will burn
<u>Evaporation rate (Butylacetate = 1)</u>	no data available
<u>Flammability (solid, gas)</u>	no data available
<u>Flammability (liquids)</u>	no data available
<u>Flammability / Explosive limit</u>	no data available
<u>Autoignition temperature</u>	no data available
<u>Vapor pressure</u>	< 23 mmHg (30.66 hPa) (77 °F (25 °C))
<u>Vapor density</u>	no data available
<u>Density</u>	
<u>Relative density</u>	1.1 (77 °F (25 °C))
<u>Solubility</u>	<u>Water solubility</u> : soluble
<u>Partition coefficient: n-octanol/water</u>	no data available
<u>Decomposition temperature</u>	no data available
<u>Viscosity</u>	no data available
<u>Explosive properties</u>	no data available
<u>Oxidizing properties</u>	no data available

9.2 Other information

<u>Volatiles by Volume</u>	30 %
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SECTION 10: Stability and reactivity

10.1 Reactivity

- Stable at normal ambient temperature and pressure.

10.2 Chemical stability

- Stable under normal conditions.
- Stable under recommended storage conditions.
- See chapter
- 7. HANDLING AND STORAGE

10.3 Possibility of hazardous reactions

- No dangerous reaction known under conditions of normal use.

Polymerization

- Hazardous polymerization does not occur.

10.4 Conditions to avoid

- Keep away from flames and sparks.
- Keep away from heat and sources of ignition.

10.5 Incompatible materials

- Strong acids
- Strong bases
- Strong oxidizing agents
- Strong reducing agents

10.6 Hazardous decomposition products

- On combustion or on thermal decomposition (following the evaporation of water) releases:
- (Carbon oxides (CO + CO₂)).

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

Nonylphenol, branched, ethoxylated

Not classified as hazardous for acute oral toxicity according to GHS.
category approach
Unpublished reports
Unpublished internal reports
CESIO

Acute inhalation toxicity

no data available

Acute dermal toxicity

Nonylphenol, branched, ethoxylated

Not classified as hazardous for acute dermal toxicity according to GHS.
category approach
Expert judgment

Acute toxicity (other routes of administration)

no data available

Skin corrosion/irritation

Rabbit
slight irritation

Serious eye damage/eye irritation

Rabbit
slight irritation

Respiratory or skin sensitization

Nonylphenol, branched, ethoxylated category approach
The product is not considered to be sensitizing by skin contact.

Mutagenicity

Genotoxicity in vitro no data available

Genotoxicity in vivo no data available

Carcinogenicity no data available

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

NTP
IARC
OSHA
ACGIH

Toxicity for reproduction and development

Toxicity to reproduction / fertility no data available

Developmental Toxicity/Teratogenicity no data available

STOT**STOT-single exposure**

Nonylphenol, branched, ethoxylated Routes of exposure: Ingestion
The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria.
internal evaluation

STOT-repeated exposure

Nonylphenol, branched, ethoxylated Routes of exposure: Ingestion
The substance or mixture is not classified as specific target organ toxicant, repeated exposure according to GHS criteria.
category approach, internal evaluation

Nonylphenol, branched, ethoxylated category approach
Subchronic toxicity
Not considered to cause serious damage to health on repeated exposure

Aspiration toxicity no data available

SECTION 12: Ecological information**12.1 Toxicity****Aquatic Compartment****Acute toxicity to fish**

Nonylphenol, branched, ethoxylated category approach
Not harmful to fish (LC50 > 100 mg/L)

Acute toxicity to daphnia and other aquatic invertebrates.

Nonylphenol, branched, ethoxylated category approach
Not harmful to aquatic invertebrates. (EC50 > 100 mg/L)

Toxicity to aquatic plants

Nonylphenol, branched, ethoxylated category approach
Not harmful to algae (EC50 > 100 mg/L)

Toxicity to microorganisms no data available

Chronic toxicity to fish no data available

Chronic toxicity to daphnia and other aquatic invertebrates. no data available

Chronic Toxicity to aquatic plants no data available

12.2 Persistence and degradability

Abiotic degradation no data available

Physical- and photo-chemical elimination no data available

Biodegradation**Biodegradability**

Nonylphenol, branched, ethoxylated Ready biodegradability study:
The substance does not fulfill the criteria for ready biodegradability and ultimate aerobic biodegradability
category approach
Expert judgment

Degradability assessment

Nonylphenol, branched, ethoxylated

The product is not considered to be rapidly degradable in the environment

12.3 Bioaccumulative potential**Partition coefficient: n-octanol/water** no data available**Bioconcentration factor (BCF)**

Nonylphenol, branched, ethoxylated

category approach
Expert judgment
Not potentially bioaccumulable**12.4 Mobility in soil****Adsorption potential (Koc)** no data available**Known distribution to environmental compartments** no data available**12.5 Results of PBT and vPvB assessment**

Nonylphenol, branched, ethoxylated

This substance is not considered to be persistent, bioaccumulating, and toxic (PBT).
This substance is not considered to be very persistent and very bioaccumulating (vPvB).**12.6 Other adverse effects**

no data available

Ecotoxicity assessment**Acute aquatic toxicity**

Nonylphenol, branched, ethoxylated

Not harmful to aquatic life (LC/EC50 > 100 mg/L)

Chronic aquatic toxicity

Nonylphenol, branched, ethoxylated

May cause long lasting harmful effects to aquatic life.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product Disposal*****Prohibition***

- Should not be released into the environment.
- Do not let product enter drains.
- Chemical additions, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

Waste Code

- Environmental Protection Agency
- Hazardous Waste – NO

Advice on cleaning and disposal of packaging

- Empty the packaging completely prior to disposal.
- Completely empty the packaging prior to decontamination.
- Carefully drain and then steam clean.
- Offer rinsed packaging material to local recycling facilities.
- Dispose of in accordance with local regulations.

SECTION 14: Transport information**DOT**

not regulated

TDG

not regulated

IMDG

not regulated

IATA

not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information**15.1 Notification status**

Inventory Information	Status
United States TSCA Inventory	- On TSCA Inventory
Canadian Domestic Substances List (DSL)	- All components of this product are on the Canadian DSL
Australia Inventory of Chemical Substances (AICS)	- On the inventory, or in compliance with the inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- On the inventory, or in compliance with the inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- On the inventory, or in compliance with the inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- On the inventory, or in compliance with the inventory

15.2 Federal Regulations**US. EPA EPCRA SARA Title III****SARA HAZARD DESIGNATION SECTIONS 311/312 (40 CFR 370)**

Fire Hazard	no
Reactivity Hazard	no
Sudden Release of Pressure Hazard	no
Acute Health Hazard	no
Chronic Health Hazard	no

Section 313 Toxic Chemicals (40 CFR 372.65)

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Section 302 Emergency Planning Extremely Hazardous Substance Threshold Planning Quantity (40 CFR 355)

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section 302 Emergency Planning Extremely Hazardous Substance Reportable Quantity (40 CFR 355)

Ingredients	CAS-No.	Reportable quantity
Ethylene Oxide	75-21-8	10 lb

Section 304 Emergency Release Notification Reportable Quantity (40 CFR 355)

Ingredients	CAS-No.	Reportable quantity
Ethylene Oxide	75-21-8	10 lb

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

Ingredients	CAS-No.	Reportable quantity
Ethylene Oxide	75-21-8	10 lb
1,4-Dioxane	123-91-1	100 lb
Acetaldehyde	75-07-0	1000 lb

Other regulations**FDA status**

- This product meets the compositional requirements of:
- 21 CFR 176.180 COMPT'S OF PAPER/PAPERBOARD CONT./DRY FOOD

15.3 State Regulations**US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)**

WARNING! This product contains a chemical known in the State of California to cause cancer.

Ingredients	CAS-No.
1,4-Dioxane	123-91-1
Acetaldehyde	75-07-0
Ethylene Oxide	75-21-8

WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

Ingredients	CAS-No.
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Ethylene Oxide

75-21-8

SECTION 16: Other information**NFPA (National Fire Protection Association) - Classification**

Health	1 slight
Flammability	1 slight
Instability or Reactivity	0 minimal

HMIS (Hazardous Materials Identification System (Paint & Coating)) - Classification

Health	1 slight
Flammability	1 slight
Reactivity	0 minimal
PPE	Determined by User; dependent on local conditions

Further information

- Product evaluated under the US GHS format.
- This sheet was updated (refer to the date at the top of this page). Subheadings and text which have been modified since the previous version are indicated with two vertical bars.

Date Prepared: 07/05/2016

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| - ACGIH | American Conference of Governmental Industrial Hygienists |
| - OSHA | Occupational Safety and Health Administration |
| - NTP | National Toxicology Program |
| - IARC | International Agency for Research on Cancer |
| - NIOSH | National Institute for Occupational Safety and Health |

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.