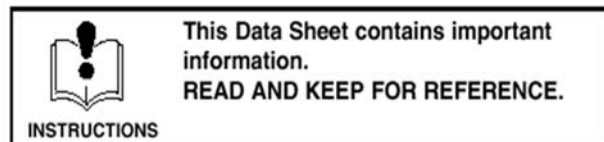


Safety Data Sheet



MSD214

Rev. B

Date: 2022-March

1.0 PRODUCT AND COMPANY IDENTIFICATION

Supplier:

Graco Inc.
P.O. Box 1441
88 11th Ave. NE
Minneapolis, MN 55440-1441
Contact: www.graco.com

For Chemical Emergency

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300

Outside USA and Canada: 1-703-741-5970

Product Name: Petrolatum, White

Part Number(s): 25T467

Use: Lubricant

Creation Date 10-Nov-2010 **Revision Date** 06-Mar-2019 **Revision Number** 6

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification

Product Description: Petrolatum, white

Cat No. : 417090000; 417090010; 417090100

Synonyms Petroleum jelly

CAS-No 8009-03-8

EC-No. 232-373-2

Reach Registration Number 01-2119490412-42

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

Recommended Use Laboratory chemicals.

Sector of use SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Product category PC21 - Laboratory chemicals

Process categories PROC15 - Use as a laboratory reagent

Environmental release category ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)

Uses advised against No Information available

1.3. Details of the supplier of the safety data sheet

E-mail address

1.4. Emergency telephone number

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Company

CLP Classification - Regulation (EC) No 1272/2008

Health hazards

Physical hazards

Based on available data, the classification criteria are not met

2.2. Label elements

Hazard Statements

Precautionary Statements

2.3. Other hazards

No information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Component CAS-No EC-No. Weight % CLP Classification - Regulation (EC) No 1272/2008

Petrolatum, white 8009-03-8 EEC No. 232-373-2 >95 -

Reach Registration Number 01-2119490412-42

Note The classification as a carcinogen need not apply if the full refining history is known and it can be shown that the substance

from which it is produced is not a carcinogen. This note applies only to certain complex oil derived substances in Annex I

Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

Skin Contact Wash off with warm water and soap.

Ingestion Do not induce vomiting. Get medical attention.

Inhalation Remove from exposure, lie down. Move to fresh air. If symptoms persist, call a physician.

Self-Protection of the First Aider No special precautions required.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

Environmental hazards

Based on available data, the classification criteria are not met

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Water spray. Carbon dioxide (CO₂). Dry chemical. Chemical foam.

Extinguishing media which must not be used for safety reasons

No information available.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO₂).

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation.

6.2. Environmental precautions

See Section 12 for additional ecological information.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Contaminated surfaces will be extremely slippery.

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Do not breathe vapors or spray mist.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday.

7.2. Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region

specific regulatory bodies

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration

(PNEC)

No information available.

8.2. Exposure controls

Engineering Measures

None under normal use conditions.

Personal protective equipment

Eye Protection Safety glasses with side-shields (European standard - EN 166)

Hand Protection No special protective equipment required

Skin and body protection Long sleeved clothing

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.

(Refer to manufacturer/supplier for information)

Route of exposure Acute effects (local) Acute effects

(systemic)

Chronic effects

(local)

Chronic effects

(systemic)

Oral

Dermal

Inhalation

Glove material Breakthrough time Glove thickness EU standard Glove comments

Disposable gloves See manufacturers recommendations

- EN 374 (minimum requirement)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Remove gloves with care avoiding skin contamination.

Respiratory Protection No protective equipment is needed under normal use conditions.

Large scale/emergency use No special protective equipment required

Small scale/Laboratory use No personal respiratory protective equipment normally required

Environmental exposure controls No information available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

9.2. Other information

Appearance White

Physical State paste

Odor Odorless

Odor Threshold No data available

pH No information available

Melting Point/Range 50 - 56 °C / 122 - 132.8 °F

Softening Point No data available

Boiling Point/Range > 300 °C / > 572 °F

Flash Point > 150 °C **Method** - No information available

Evaporation Rate No data available

Flammability (solid,gas) Not applicable Liquid

Explosion Limits No data available

Vapor Pressure No information available

Vapor Density No information available (Air = 1.0)

Specific Gravity / Density 0.840
Bulk Density Not applicable Liquid
Water Solubility Insoluble
Solubility in other solvents No information available
Partition Coefficient (n-octanol/water)
Autoignition Temperature No data available
Decomposition Temperature No data available
Viscosity ca 7 mm²/s (100°C)
Explosive Properties No information available
Oxidizing Properties No information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

None known, based on information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions No information available.

10.4. Conditions to avoid

Incompatible products.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Product Information

(a) acute toxicity;

Oral Based on available data, the classification criteria are not met

Dermal Based on available data, the classification criteria are not met

Inhalation Based on available data, the classification criteria are not met

Component LD50 Oral LD50 Dermal LC50 Inhalation

Petrolatum, white >5000 mg/kg (Rat) >2000 mg/kg (Rabbit)

(b) skin corrosion/irritation; Based on available data, the classification criteria are not met

(c) serious eye damage/irritation; Based on available data, the classification criteria are not met

(d) respiratory or skin sensitization;

Respiratory Based on available data, the classification criteria are not met

Skin Based on available data, the classification criteria are not met

(e) germ cell mutagenicity; Based on available data, the classification criteria are not met

(f) carcinogenicity; Based on available data, the classification criteria are not met

The table below indicates whether each agency has listed any ingredient as a carcinogen.

The classification as a carcinogen need not apply if the full refining history is known and it

can be shown that the substance from which it is produced is not a carcinogen. This note

applies only to certain complex oil derived substances in Annex I.

Component EU UK Germany IARC

Petrolatum, white Carc Cat. 1B

(g) reproductive toxicity; Based on available data, the classification criteria are not met

(h) STOT-single exposure; Based on available data, the classification criteria are not met

(i) STOT-repeated exposure; Based on available data, the classification criteria are not met

Target Organs No information available.

(j) aspiration hazard; Based on available data, the classification criteria are not met

Symptoms / effects, both acute and delayed

No information available

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects

Component Freshwater Fish Water Flea Freshwater Algae Microtox

Petrolatum, white >100 mg/L/96h

(Pimephales promelas) >10000 mg/L/48h

12.2. Persistence and degradability Biodegradability: 31% (28d; method OECD 301 F)

Persistence Insoluble in water.

12.3. Bioaccumulative potential Bioaccumulation is unlikely

12.4. Mobility in soil Spillage unlikely to penetrate soil. The product is insoluble and floats on water. Is not likely

mobile in the environment due its low water solubility.

12.5. Results of PBT and vPvB assessment

No data available for assessment.

12.6. Other adverse effects

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors

Persistent Organic Pollutant This product does not contain any known or suspected substance

Ozone Depletion Potential This product does not contain any known or suspected substance

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues / Unused

Products

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Contaminated Packaging Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use empty containers.

European Waste Catalogue (EWC) According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.

Other Information Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

ADR Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

IATA Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards No hazards identified

14.6. Special precautions for user No special precautions required

14.7. Transport in bulk according to

Annex II of MARPOL73/78 and the

IBC Code

Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

International Inventories X = listed.

Component EINECS ELINCS NLP TSCA DSL NDSL PICCS ENCS IECSC AICS KECL

Petrolatum, white 232-373-2 - X X - X - X X KE-2817

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Note The classification as a carcinogen need not apply if the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen. This note applies only to certain complex oil derived substances in Annex I

Component REACH (1907/2006) - Annex XIV -

Substances Subject to

Authorization

REACH (1907/2006) - Annex XVII -

Restrictions on Certain Dangerous Substances

REACH Regulation (EC

1907/2006) article 59 - Candidate

List of Substances of Very High Concern (SVHC)

Petrolatum, white Use restricted. See item 28.

(see

<http://eur-lex.europa.eu/LexUriServ/L>

National Regulations

Component Germany - Water Classification (VwVwS) Germany - TA-Luft Class

Petrolatum, white WGK 3

nwg - nicht wassergefährdend (non-hazardous to waters)

Component France - INRS (Tables of occupational diseases)

Petrolatum, white Tableaux des maladies professionnelles (TMP) - RG 36

Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment.

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has been conducted by the manufacturer/importer

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

Legend

Key literature references and sources for data

Suppliers safety data sheet, Chemadviser - LOLI, Merck index, RTECS

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Creation Date 10-Nov-2010

Revision Date 06-Mar-2019

Revision Summary Not applicable.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

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. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet

CAS - Chemical Abstracts Service **TSCA** - United States Toxic Substances Control Act Section 8(b)

Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical

Substances/EU List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic

Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances **ENCS** - Japanese Existing and New Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances **AICS** - Australian Inventory of Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances **NZIoC** - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit **TWA** - Time Weighted Average

ACGIH - American Conference of Governmental Industrial Hygienists **IARC** - International Agency for Research on Cancer

DNEL - Derived No Effect Level **PNEC** - Predicted No Effect Concentration

RPE - Respiratory Protective Equipment **LD50** - Lethal Dose 50%

LC50 - Lethal Concentration 50% **EC50** - Effective Concentration 50%

NOEC - No Observed Effect Concentration **POW** - Partition coefficient Octanol:Water

PBT - Persistent, Bioaccumulative, Toxic **vPvB** - very Persistent, very Bioaccumulative

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

MARPOL - International Convention for the Prevention of Pollution from Ships

OECD - Organisation for Economic Co-operation and Development **ATE** - Acute Toxicity Estimate

BCF - Bioconcentration factor

VOC - Volatile Organic Compound

Revision History: (record Rev., Date and what has changed)

Prepared By	Graco, Inc.
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This Material Safety Data Sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in this data sheet which we have received from sources outside our company. We believe that information to be correct, but cannot guarantee its accuracy or completeness. Health and safety precautions in this Data Sheet may not be adequate for all individuals and/or situations. It is the users' obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either express or implied.

*All written and visual data contained in this document reflects the latest product information available at the time of publication.
Graco reserves the right to make changes at any time without notice.*

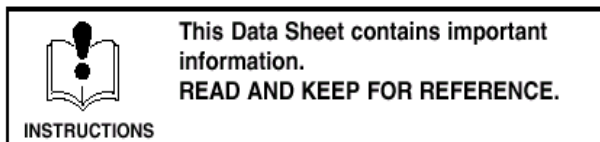
Headquarters: Minneapolis

International Offices: Belgium, Korea, Hong Kong, Japan

GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440-1441

www.graco.com

Safety Data Sheet



MSD029EN

Rev. D

Date: 2016-MARCH

1.0 PRODUCT AND COMPANY IDENTIFICATION

Supplier:

Graco Inc.
P.O. Box 1441
88 11th Ave. NE
Minneapolis, MN 55440-1441

Contact: www.graco.com

Product Name: Pump Armor

Part Number(s): 243103, 243104, 244168, 245133, 253574, 16M816, 16W448, 17A000, 24D386, 24N478, 24Y195

Use: Corrosion Inhibitor/Lubricant

For Chemical Emergency

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300

Outside USA and Canada: 1-703-741-5970

SECTION 2

HAZARD IDENTIFICATION

Appearance:	Clear, Blue Liquid.
Odor:	Mild, Sweet Odor.
Classification:	Acute Toxicity - oral category 4
Target Organs:	Stomach and intestines
Pictogram(s):	
Signal Word:	WARNING
Hazard Statement:	H302 - Harmful if swallowed
Other Hazards:	Not determined.
Prevention:	P101 - If medical advice is needed, have product container or label at hand P102 - Keep out of reach of children P103 - Read label before use P264 - Wash hands thoroughly after handling P270 - Do not eat, drink or smoke when using this product
Response:	P330 - Rinse mouth P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Storage Procedures:	None required.
Disposal:	P501 - Dispose of contents and container in accordance with federal, state, and local regulations
Other:	See section 11 for complete health hazard information.

SECTION 3**COMPOSITION OF INGREDIENTS**

Component	CAS Number	Percentage (by weight)
Ethylene Glycol	107-21-1	40 - 60%
Dipotassium Phosphate	7758-11-4	0.1 - 1.0%
Sodium Nitrate	7632-00-0	0.1 - 1.0%
Denatonium Benzoate	3734-33-6	< 0.1%

The balance of components do not contribute to the overall classification of the fluid, according to the GHS Standard.

SECTION 4**FIRST AID MEASURES**

Eye Contact:	If irritation occurs, cautiously rinse eyes with lukewarm, gently flowing water for 5 minutes, while holding the eyelids open. If eye irritation persists: Get medical
Skin Contact:	Call a doctor if you feel unwell.
Inhalation:	Get medical advice or attention if you feel unwell or are concerned.
Ingestion:	Rinse mouth. Do not induce vomiting, and immediately call a poison center or doctor. If vomiting occurs naturally, lie on your side, in the recovery position.
Other:	Contains ethylene glycol, which is toxic when swallowed. A lethal dose of ethylene glycol for an adult human is 1-2 mL per kilogram of body weight, or about 4 ounces (1/2 cup) for a 130-lb adult and may show delayed onset of symptoms.

SECTION 5**FIRE FIGHTING MEASURES**

Flash Point:	118°C (>244°F) typical by ASTM D92 for Ethylene Glycol.
Flammable limits:	Not determined.
Extinguishing media:	Use dry chemical, alcohol foam, all purpose AFFF or carbon dioxide to extinguish fire.
Special firefighting procedures:	DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).
Unusual fire & explosion hazards:	Dense smoke may be generated while burning. Toxic fumes, gases or vapors may evolve on burning. High temperatures may create heavy flammable vapors that may settle along ground level and low spots to create an invisible fire hazard.
Byproducts of combustion:	Fires involving this product may release oxides of carbon, phosphorus, nitrogen and sulfur; reactive hydrocarbons and irritating vapors.
Autoignition temperature:	Not determined.
Explosion data:	Not determined. Care should always be exercised in dust/mist areas.
Other:	Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

SECTION 6**ACCIDENTAL RELEASE MEASURES**

Spill control procedures (land):	Immediately turn off or isolate any source of ignition (pilot lights, electrical equipment, flames, heaters, etc.). Evacuate area and ventilate. Personnel wearing proper protective equipment should contain spill immediately with inert materials (sand, earth, chemical spill pads of cotton) by forming dikes. Dikes should be placed to contain spill in a manner that will prevent material from entering sewers and waterways. Large spill, once contained, may be picked up using explosion proof, non-sparking vacuum pumps, shovels, or buckets, and disposed of in suitable containers for disposal. Clean up residue with water. If a large spill occurs notify appropriate authorities. In case of road spill or accident contact Chem-Trec (800-424-9300).
Spill control procedures (water):	Try to contain large spills with floating booms to prevent spill from spreading. Remove from surface by skimming or with suitable adsorbents. If a large spill occurs notify appropriate authorities (normally the National Response Center or Coast Guard at 800-424-8802).
Waste disposal method:	Do not empty into drains. All disposals must comply with federal, state, and local regulations. The material, if spilled or discarded may be a regulated waste. Refer to state and local regulations. Department of Transportation (DOT) regulations may apply for transporting this material when spilled. See Section 14.
Other:	CAUTION - If spilled material is cleaned up using a regulated solvent, the resulting waste mixture will be regulated.

SECTION 7**HANDLING AND STORAGE**

Handling procedures:	Keep containers closed when not in use. Do not transfer to unmarked containers. Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld, or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse. Handling temperatures should not exceed 60°C (140°F) to minimize danger of burns. Open containers carefully in a well ventilated area or use appropriate respiratory protection. Wash thoroughly after handling.
Storage procedures:	Store containers away from heat, sparks, open flame, or oxidizing materials. Extended storage at excessive temperatures may produce odorous and toxic fumes from product decomposition.
Additional information:	No additional information.

SECTION 8**EXPOSURE CONTROLS / PERSONAL PROTECTION**

Personal protection:	Applicable mainly to persons in repeated contact situations such as packaging of product, service/maintenance, and cleanup/spill control personnel.
Respiratory protection:	None required if ventilation is adequate. Otherwise a respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed. Where misting may occur, wear an MSHA/NIOSH approved (or equivalent) half-mask form dust/mist air purifying respirator.
Eye protection:	Eye protection is strongly recommended. Wear safety glasses with side shields or vented/splash proof goggles (ANSI Z87.1 or approved equivalent).
Hand protection:	Impervious, chemically resistant gloves such as neoprene or nitrile rubber to avoid skin sensitization and absorption.
Other protection:	Use of an apron and overboots of chemically impervious materials such as neoprene or nitrile rubber is recommended based on level of activity and exposure. If handling hot material use insulated protective equipment. Launder soiled clothes. Properly dispose of contaminated leather articles and other materials which cannot be decontaminated.

Local control measures:	Use adequate ventilation when working with material in an enclosed area. Mechanical methods such as fume hoods or area fans may be used to reduce localized vapor/mist areas. If vapor or mist is generated when the material handled, adequate ventilation in accordance with good engineering practice must be provided to maintain concentrations below the specified exposure. Eyewash stations and showers should be available in areas where this material is used and stored.
Other:	Consumption of food and drink should be avoided in work areas where product is present. Always wash hands and face with soap and water before eating, drinking or smoking.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, Blue Liquid.
Odor:	Mild, Sweet Odor.
Odor threshold:	Not determined.
pH:	Approximately 10-11.
Melting/Freezing point:	Not determined.
Initial boiling point:	Not determined.
Boiling range:	Not determined.
Flash point:	118°C (>244°F) typical by ASTM D92 for Ethylene Glycol.
Evaporation rate:	Not determined.
Flammability:	Not determined.
Upper flammable limit:	Not determined.
Lower flammable limit:	Not determined.
Vapor pressure:	Not determined.
Vapor density:	Greater than air.
Relative density:	1.08 g/cm ³ @ 15.6°C
Solubility:	Fully miscible in water, immiscible in most petroleum solvents.
Partition Coefficient:	Not determined.
Auto-ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
Viscosity:	Not determined.
VOC:	Negligible.
Other:	Not applicable.

SECTION 10

STABILITY AND REACTIVITY

Reactivity Chemical stability: Hazardous polymerization: Conditions to avoid:	Material is chemically stable at room temperatures and pressure. Will not occur. Avoid high temperatures and product contamination. Avoid all sources of ignition including heat, sparks, and open flame.
Incompatibility with other materials:	Avoid contact with acids and strong oxidizing materials.
Decomposition products:	Smoke, carbon monoxide, carbon dioxide, and other aldehydes of incomplete combustion. Oxides of carbon, nitrogen, and sulfur; reactive hydrocarbons and irritating vapors.
Other:	Not applicable.

SECTION 11**TOXICOLOGICAL INFORMATION****Acute toxicity (LD50) *See note at the bottom of the section**

Oral:	Dermal:	300 - 2000 mg/kg
Inhalation:		>5000 mg/kg
Skin irritation:		>20.0 mg/l
Eye irritation:		Non-irritant
Dermal sensitization:		Non-irritant
Respiratory sensitization:		Not expected to have a sensitizing effect.
Aspiration Hazard:		Not expected to have a sensitizing effect.
Chronic Toxicity		Not applicable
Mutagenicity:		
Carcinogenicity:		Not suspected of causing genetic defects
Reproductive toxicity:		Not suspected of causing cancer.
STOT-single exposure:		Not expected to have adverse effects on reproduction.
STOT-repeated exposure:		Not expected to have adverse effects.
Other:		Not expected to have long term adverse effects.

*All data in this section is based off calculations from Part 3 of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) utilizing information from the constituent components.

Contains ethylene glycol, which is toxic when swallowed. A lethal dose of ethylene glycol for an adult human is 1-2 mL per kilogram of body weight, or about 4 ounces (1/2 cup) for a 130-lb adult and may show delayed onset of symptoms.

SECTION 12**ECOLOGICAL INFORMATION****Environmental toxicity**

Fish:	> 100 mg/l.
Invertebrates:	> 100 mg/l.
Aquatic plants:	> 100 mg/l.
Microorganism:	> 100 mg/l.

Persistence/Degradability: This product is not expected to be readily biodegradable.

Bioaccumulation: Not determined.

Mobility in soil: Not determined.

Other: All classifications are based on calculations in Part 4 of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) utilizing information from the constituent components.

SECTION 13**DISPOSAL CONSIDERATIONS**

Waste disposal: This product unadulterated by other materials can be classified as a non-hazardous waste. Depending on use, used product may be regulated. Dispose of in a licensed facility. Do not discharge product in to sewer system. Dispose of containers by crushing or puncturing, so as to prevent unauthorized use of used containers. Waste management should be in full compliance with federal, state, and local laws.

Other The transportation, storage, treatment and disposal of RCRA waste material must be conducted in compliance with 40 CFR 262, 263, 264, 268 and 270. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate.

SECTION 14**TRANSPORT INFORMATION**

Land Transport (DOT): UN3082
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, n.o.s. (ethylene glycol), 9, III
Land Transport (TDG): UN3082
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, n.o.s. (ethylene glycol), 9, III
Sea Transport (IMDG): UN3082
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, n.o.s. (ethylene glycol), 9, III
Air Transport (IATA): UN3082
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, n.o.s. (ethylene glycol), 9, III
Other: These materials are exempt from DOT regulations unless quantities greater than 5000 pounds are transported. This exclusion applies to consumer packaging up to DOT shipping drums (515 pounds) and small totes. Shipping notification occurs at 5000 pounds, or approximately 531 gallons.

Information according to 49 CFR 172.101 for materials predominantly composed of ethylene glycol and glycol suppliers.

Marine Pollutant: NO.

SECTION 15**REGULATORY INFORMATION**

WHMIS: Class D, Division 1, Subdivision B: Toxic Material - Acute Lethality
Class D, Division 2, Subdivision A: Very Toxic Material - Teratogenicity and Embryotoxicity
Class D, Division 2, Subdivision B: Toxic Material - Chronic Toxic Effects

Federal Regulation
Clean water act/oil: Contact the National Response Center at 800-424-8802, if located in the U.S., in the case of a spill that enters waterways.

TSCA: All components of this material are listed in the U.S. TSCA Inventory.
Other TSCA: Not applicable.
SARA title III: Section 302/304 extremely hazardous substances: None.

Section 311, 312 hazard categorization:

Acute (immediate health effects):	YES
Chronic (delayed health effects):	NO
Fire (hazard):	NO
Reactivity (hazard):	NO
Pressure (sudden release hazard):	NO

Section 313 toxic chemicals:
Ethylene Glycol <60%

CERCLA: For stationary sources – reportable quantity:
5000 pounds due to ethylene glycol.
For moving sources – reportable quantity:
5000 pounds due to ethylene glycol.

State Regulations

Right-to-know

Ethylene Glycol ((Florida, Massachusetts, Minnesota, Pennsylvania), Diethylene Glycol in trace amounts (Minnesota, Pennsylvania).

Other:

Clean Air Act of 1990: Spills of one pound (~1 pint) or more must be reported.
For location specific information contact the EPA's Chemical Emergency Preparedness Program Hotline (800-535-0202).

EPA Toxin: This material is an EPA toxin (ethylene glycol).

Recommend contacting the local authorities in the event of any type of spill to determine local reporting requirements and also to aid in the cleanup.

SECTION 16

OTHER INFORMATION

	NFPA 704	NPCA-HMIS	KEY
HEALTH:	2	2	0 = Minimal
FIRE:	1	1	1 = Slight
REACTIVITY:	0	0	2 = Moderate
SPECIFIC HAZARD:	None	N/A	3 = Serious
PROTECTION INDEX:	N/A	B	4 = Severe

Revision History: (Rev. D, 03/15/16, Update Section 9)

Prepared By

Graco, Inc.

This Material Safety Data Sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in this data sheet which we have received from sources outside our company. We believe that information to be correct, but cannot guarantee its accuracy or completeness. Health and safety precautions in this Data Sheet may not be adequate for all individuals and/or situations. It is the users' obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either express or implied.

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