



Graco Pump Armor

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
SDS ID: 30965
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SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Graco Pump Armor

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Graco Inc
88 - 11th Avenue Northeast
Minneapolis, MN, 55413
USA
T 612-623-6000
www.graco.com

1.4. Emergency telephone number

Emergency number : 1-800-424-9300 (CHEMTREC)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute toxicity (oral), Category 4 H302 Harmful if sw allowed.
Full text of H-statements: see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
Hazard statements (GHS US) : H302 - Harmful if sw allowed.
Precautionary statements (GHS US) : P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P301+P312 - If sw allowed: Call a poison center/doctor if you feel unwell
P330 - Rinse mouth.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
ETHYLENE GLYCOL	CAS-No.: 107-21-1	40 – 60	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
WATER	CAS-No.: 7732-18-5	40 – 60	Not classified

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: First aider: Pay attention to self-protection. Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Seek medical attention if ill effect or irritation develops.
First-aid measures after skin contact	: Seek medical attention if ill effect or irritation develops. Wash skin with plenty of water.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Rinse cautiously with water for several minutes.
First-aid measures after ingestion	: Do not induce vomiting. If you feel unwell, seek medical advice. Rinse mouth. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact	: None under normal conditions.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO ₂). Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: Vapours may cause fire/explosion if source of ignition is present. Watch out for invisible flames. The vapours are denser than air and may travel along the ground. Distance ignition possible.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

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5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Evacuate area. Use water spray or fog for cooling exposed containers. Do not allow water to enter the vessels, a violent reaction may occur. Eliminate all ignition sources if safe to do so. Fight fire from safe distance and protected location. In case of fire: stop leak if safe to do so. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: High temperature decomposition products are harmful by inhalation. On exposure to high temperature, may decompose, releasing toxic gases.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Clean up any spills as soon as possible, using an absorbent material to collect it. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Eliminate every possible source of ignition. Evacuate area. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
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6.1.1. For non-emergency personnel

Protective equipment	: Avoid contact with skin, eyes and clothing. Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area. Evacuate unnecessary personnel. Do not breathe vapours. No open flames, no sparks, and no smoking.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment. Do not allow to enter drains or water courses. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
Methods for cleaning up	: Take up liquid spill into absorbent material. Soak up with inert absorbent material (for example sand, saw dust, a universal binder, silica gel). Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. This material and its container must be disposed of in a safe way, and as per local legislation. Clear up rapidly by scoop or vacuum.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Not expected to present a significant hazard under anticipated conditions of normal use.
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Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment. Do not breathe vapours. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Handling temperature	: ≤ 140 °F
Hygiene measures	: Wear personal protective equipment. Take off immediately all contaminated clothing and wash it before reuse. Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Store in a well-ventilated place. Keep container tightly closed. Keep only in original container. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Packaging materials	: Store always product in container of same material as original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA	5 mg/m ³ Contains highly refined petroleum oil
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USA - OSHA - Occupational Exposure Limits

OSHA PEL TWA	5 mg/m ³ Contains highly refined petroleum oil
OSHA PEL STEL	10 mg/m ³ Contains highly refined petroleum oil

ETHYLENE GLYCOL (107-21-1)

USA - ACGIH - Occupational Exposure Limits

Local name	Ethylene glycol
ACGIH OEL TWA	5 mg/m ³ Contains highly refined petroleum oil 25 ppm (Vapor fraction)
ACGIH OEL STEL	10 mg/m ³ (Inhalable fraction, Aerosol only) 50 ppm (Vapor fraction)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2023

USA - OSHA - Occupational Exposure Limits

OSHA PEL TWA	5 mg/m ³ Contains highly refined petroleum oil
OSHA PEL STEL	10 mg/m ³ Contains highly refined petroleum oil

8.2. Appropriate engineering controls

Appropriate engineering controls	: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

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Hand protection:
Protective gloves. Nitrile rubber gloves
Eye protection:
Chemical goggles or safety glasses. Safety glasses
Skin and body protection:
Wear suitable protective clothing. Wear impervious rubber safety shoes. Chemical resistant apron
Respiratory protection:
In case of inadequate ventilation wear respiratory protection.

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear Blue
Odour	: slight Sweet
Odour threshold	: No data available
pH	: 10 – 11
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 100 °C ASTM D93
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapour pressure	: No data available
Relative vapour density at 20°C	: No data available
Relative density	: 1.08 at 15.6°C
Solubility	: Soluble in: Water. Insoluble in: Organic solvents.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

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10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal use.

10.4. Conditions to avoid

High temperature.

10.5. Incompatible materials

Acids. Oxidizing agent.

10.6. Hazardous decomposition products

fume. Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if sw allowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

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ATE US (oral)	1000.28 mg/kg bodyweight
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ETHYLENE GLYCOL (107-21-1)

LD50 dermal	> 3500 mg/kg bodyw eight (Mouse, Male / female, Experimental value, Dermal)
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LC50 Inhalation - Rat	> 2.5 mg/l (6 h, Rat, Male / female, Experimental value, Inhalation (aerosol))
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ATE US (oral)	500 mg/kg bodyw eight
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Skin corrosion/irritation : Not classified
pH: 10 – 11

ETHYLENE GLYCOL (107-21-1)

pH	6 – 7.5 Source: GESTIS
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Serious eye damage/irritation : Not classified
pH: 10 – 11

ETHYLENE GLYCOL (107-21-1)

pH	6 – 7.5 Source: GESTIS
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Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified.

ETHYLENE GLYCOL (107-21-1)

STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
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Aspiration hazard : Not classified
Viscosity, kinematic : No data available

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ETHYLENE GLYCOL (107-21-1)

Viscosity, kinematic	18.86 mm ² /s (20 °C)
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact	: None under normal conditions.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No additional information available

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LC50 - Fish [1]	> 100 mg/l
LC50 - Other aquatic organisms [1]	> 100 mg/l

ETHYLENE GLYCOL (107-21-1)

LC50 - Fish [1]	40761 mg/l (96 h, Salmo gairdneri, Static system)
LC50 - Other aquatic organisms [1]	> 100 mg/l
EC50 - Crustacea [1]	> 10000 mg/l (24 h, Daphnia magna)
EC50 96h - Algae [1]	6.5 – 13 g/l (Selenastrum capricornutum, Growth)
NOEC (chronic)	≥ 1000 mg/l Test organisms (species): Americamysis bahia (previous name: Mysidopsis bahia) Duration: '23 d'

12.2. Persistence and degradability

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Persistence and degradability	Not rapidly degradable
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WATER (7732-18-5)

Persistence and degradability	Not rapidly degradable
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ETHYLENE GLYCOL (107-21-1)

Persistence and degradability	Biodegradable in the soil, Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.47 g O ₂ /g substance
Chemical oxygen demand (COD)	1.24 g O ₂ /g substance
ThOD	1.29 g O ₂ /g substance
BOD (% of ThOD)	0.36

12.3. Bioaccumulative potential

ETHYLENE GLYCOL (107-21-1)

BCF - Fish [1]	10 (72 h, Leuciscus idus)
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ETHYLENE GLYCOL (107-21-1)	
BCF - Other aquatic organisms [1]	0.21 – 0.6 (Procambarus sp., Chronic)
BCF - Other aquatic organisms [2]	190 (24 h, Algae)
Partition coefficient n-octanol/water (Log Pow)	-1.34 (Experimental value)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

ETHYLENE GLYCOL (107-21-1)	
Mobility in soil	0.2 Source: HSDB
Surface tension	48 mN/m (20 °C)
Ecology - soil	No (test) data on mobility of the substance available.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Disposal must be done according to official regulations.
Additional information	: Clean up even minor leaks or spills if possible without unnecessary risk. Do not re-use empty containers.
Ecological information	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

DOT NA No : UN3082

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Environmentally hazardous substances, liquid, n.o.s. (Ethylene Glycol)

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 9

Hazard labels (DOT) : 9



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14.4. Packing group

Packing group (DOT) : III

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Non Bulk: Not regulated by the US D.O.T. (in quantities under 5,000 lbs in any one inner package).

DOT

Transport regulations (DOT) : Non Bulk: Not regulated by the US D.O.T. (in quantities under 5,000 lbs in any one inner package).

UN-No.(DOT) : UN3082

DOT Packaging Exceptions (49 CFR 173.xxx) : 155

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 241

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
WATER	7732-18-5	Present	Active	
ETHYLENE GLYCOL	107-21-1	Present	Active	

ETHYLENE GLYCOL (107-21-1)

Subject to reporting requirements of United States SARA Section 313

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ	5000 lb
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15.2. International regulations

CANADA

WATER (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

ETHYLENE GLYCOL (107-21-1)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

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National regulations

WATER (7732-18-5)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

ETHYLENE GLYCOL (107-21-1)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

ETHYLENE GLYCOL (107-21-1)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allow able dose level (MADL)
No	Yes	No	No		8700 µg/day (oral)

SECTION 16: Other information

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Revision date : 1/17/2023

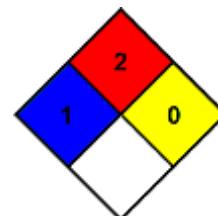
Full text of H-statements

H302	Harmful if sw allowed.
H373	May cause damage to organs through prolonged or repeated exposure.

NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard : 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection : B - Safety glasses, Gloves

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.