

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Develon Premixed Antifreeze/Coolant

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Develon
2905 Shawnee Industrial Way
Suwanee, GA 30024
USA
T (678) 714-6000

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

Reproductive toxicity Category 2 H361 Suspected of damaging fertility or the unborn child
Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
Hazard statements (GHS US) : H361 - Suspected of damaging fertility or the unborn child
Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P405 - Store locked up.
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	25 – 50	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
POTASSIUM 2-ETHYLHEXANOATE	CAS-No.: 3164-85-0	1 – 5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Repr. 2, H361 STOT SE 3, H335

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

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	: IF exposed or concerned: Get medical advice/attention. Call a poison center/doctor/physician if you feel unwell. First aider: Pay attention to self-protection.
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	: Wash skin with plenty of water. Seek medical attention if ill effect or irritation develops.
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.
First-aid measures after ingestion	: Rinse mouth. Call a poison center/doctor/physician if you feel unwell. Do not induce vomiting. If you feel unwell, seek medical advice.

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.

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 : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Fire hazard : The vapors are denser than air and may travel along the ground. Distance ignition possible.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Evacuate area. Use water spray or fog for cooling exposed containers. 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.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: High temperature decomposition products are harmful by inhalation.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Eliminate every possible source of ignition. Evacuate area. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

6.1.1. For non-emergency personnel

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

6.1.2. For emergency responders

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.

6.2. Environmental precautions

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 : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for cleaning up : Notify authorities if product enters sewers or public waters. 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

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Ensure good ventilation of the work station. Do not breathe vapors. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Handling temperature : ≤ 140 °F
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wear personal protective equipment. Take off immediately all contaminated clothing and wash it before reuse. Separate working clothes from town clothes. Launder separately.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. 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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:
Wear recommended personal protective equipment.

Hand protection:
Protective gloves. nitrile rubber gloves
Eye protection:
Chemical goggles or 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. In case of inadequate ventilation wear respiratory protection.

Personal protective equipment symbol(s):



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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Yellow
Odor	: mild
Odor threshold	: No data available
pH	: 8 – 8.6
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 1.06 – 1.09 @ 15.6C
Solubility	: No data available
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
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing 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.

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.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

POTASSIUM 2-ETHYLHEXANOATE (3164-85-0)

LD50 oral	2400 – 2400 mg/kg body weight Animal: other:, Remarks on results: other:
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Read-across, Dermal, 14 day(s))
ATE US (oral)	2043 mg/kg body weight

ETHYLENE GLYCOL (107-21-1)

LD50 dermal	> 3500 mg/kg body weight (Mouse, Male / female, Experimental value, Dermal)
LC50 Inhalation - Rat	> 2.5 mg/l (6 h, Rat, Male / female, Experimental value, Inhalation (aerosol))
ATE US (oral)	500 mg/kg body weight
Skin corrosion/irritation	: Not classified pH: 8 – 8.6

POTASSIUM 2-ETHYLHEXANOATE (3164-85-0)

pH	6.9 (213.4 g/100 ml, 20 °C, OECD 105: Water Solubility)
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ETHYLENE GLYCOL (107-21-1)

pH	6 – 7.5 Source: GESTIS
Serious eye damage/irritation	: Not classified pH: 8 – 8.6

POTASSIUM 2-ETHYLHEXANOATE (3164-85-0)

pH	6.9 (213.4 g/100 ml, 20 °C, OECD 105: Water Solubility)
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ETHYLENE GLYCOL (107-21-1)

pH	6 – 7.5 Source: GESTIS
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: Not classified

POTASSIUM 2-ETHYLHEXANOATE (3164-85-0)

STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified

POTASSIUM 2-ETHYLHEXANOATE (3164-85-0)

NOAEL (subchronic,oral,animal/male,90 days)	180 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: other:
NOAEL (subchronic,oral,animal/female,90 days)	205 mg/kg body weight Animal: mouse, Animal sex: female, Guideline: other:

ETHYLENE GLYCOL (107-21-1)

STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified

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Viscosity, kinematic : No data available

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.

SECTION 12: Ecological information

12.1. Toxicity

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

POTASSIUM 2-ETHYLHEXANOATE (3164-85-0)

LC50 - Fish [1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oryzias latipes, Semi-static system, Fresh water, Read-across)
EC50 - Crustacea [1]	910 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Fresh water, Weight of evidence)
EC50 72h - Algae [1]	49.3 mg/l Source: ECHA
ErC50 algae	49.3 mg/l (Other, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Read-across, Nominal concentration)
LOEC (chronic)	63 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	25 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

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

Develon Premixed Antifreeze/Coolant

Persistence and degradability	Not rapidly degradable
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POTASSIUM 2-ETHYLHEXANOATE (3164-85-0)

Persistence and degradability	Readily biodegradable in water.
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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

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ETHYLENE GLYCOL (107-21-1)

BOD (% of ThOD)	0.36
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12.3. Bioaccumulative potential

POTASSIUM 2-ETHYLHEXANOATE (3164-85-0)

Partition coefficient n-octanol/water (Log Pow)	2.96 (Read-across, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

ETHYLENE GLYCOL (107-21-1)

BCF - Fish [1]	10 (72 h, Leuciscus idus)
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

POTASSIUM 2-ETHYLHEXANOATE (3164-85-0)

Ecology - soil	Low potential for adsorption in soil.
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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.
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
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14.2. UN proper shipping name

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

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 9

Hazard labels (DOT) : 9



14.4. Packing group

Packing group (DOT) : III

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

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
POTASSIUM 2-ETHYLHEXANOATE	3164-85-0	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

POTASSIUM 2-ETHYLHEXANOATE (3164-85-0)

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

National regulations

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 allowable dose level (MADL)
No	Yes	No	No		8700 µg/day (oral)

SECTION 16: Other information

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Full text of H-phrases

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure

NFPA health hazard

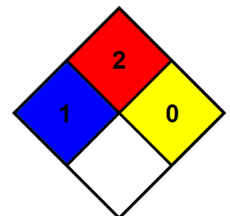
: 1 - Materials that, under emergency conditions, can cause significant irritation.

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)

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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.