

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 01/01/2024

SECTION 1: Identificat	tion of the subst	ance/mixture and of the company/undertaking
1.1. Product identifier		
Product form		Mixture
Product name		Full Force Conventional Green Concentrate Antifreeze and Coolant
SDS ID		
202 0	•	115070
1.2. Relevant identified	d uses of the substa	nce or mixture and uses advised against
Use of the substance/mixture	:	Antifreeze & Coolant
1.3. Details of the supp	olier of the safety dat	ta sheet
Old World Industries, LLC 3100 Sanders Road Northbrook, IL 60062 - USA T (847) 559-2000 www.oldworldind.com		
1.4. Emergency teleph	one number	
Emergency number	:	800 424 9300 (United States); 00 1 703 527 3887 (International) Chemtrec
SECTION 2: Hazards i	dentification	
2.1. Classification of the	he substance or mix	ture
GHS-US classification		
Acute toxicity (oral), Category 4	H302	Harmful if swallowed.
Specific target organ toxicity — Repeated exposure, Category 2	H373	May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).
Full text of H statements : see	e section 16	
2.2. Label elements		
GHS-US labelling Hazard pictograms (GHS-US)) :	GHS07 GHS08
Signal word (GHS-US)	:	Warning
Hazard statements (GHS-US)) :	Harmful if swallowed. May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).
Precautionary statements (G	HS-US) :	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist, spray, vapors Wash affected areas thoroughly after handling. Do not eat, drink or smoke when using this product. Wear personal protective equipment as required. If swallowed: Immediately call doctor/physician or poison center If swallowed: rinse mouth. Do NOT induce vomiting If inhaled: Remove person to fresh air and keep comfortable for breathing If exposed or concerned: Get medical advice/attention. Store locked up. Dispose of contents/container to appropriate waste disposal facility, in accordance with
		local/regional/national/international regulations

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2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

5.2. Wixtures			
Name	Product identifier	% by wt	GHS-US classification
ethylene glycol (antifreezing agent)	(CAS-No.) 107-21-1	90 - 97	Acute Tox. 4 (Oral), H302
diethylene glycol (antifreezing agent)	(CAS-No.) 111-46-6	0.5 - 5	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
water (solvent)	(CAS-No.) 7732-18-5	1 - 5	Not classified
denatonium benzoate (embittering agent)	(CAS-No.) 3734-33-6	0.003 - 0.005 [30 - 50 ppm]	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

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	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: Wash skin with plenty of water. Remove contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Rinse immediately with plenty of water (for at least 15 minutes), Get medical advice/attention.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse immediately with plenty of water for 15 minutes, lifting lower and upper lids. If eye irritation persists: Get medical advice and attention.
First-aid measures after ingestion	: Obtain emergency medical attention. Rinse mouth. If the person is fully conscious, make him/her drink two glasses of water. Never give an unconscious person anything to drink. Do NOT induce vomiting. Call a POISON CENTER/doctor/physician if you feel unwell. If medical advice is delayed, and if the person has swallowed a moderate volume of material (a few ounces), then give three to four ounces of hard liquor, such as whiskey. For children, give proportionally less liquor, according to weight.
4.2. Most important symptoms and effect	ts, both acute and delayed
Symptoms/effects	: Causes damage to organs (kidneys) Oral.
Symptoms/effects after skin contact	: May cause moderate irritation.
Symptoms/effects after eye contact	: Direct contact with the eyes is likely to be irritating.
Symptoms/effects after ingestion	: Swallowing a small quantity of this material will result in serious health hazard. The lethal dose is burned to be 400 m (2 sc)

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

A more effective intravenous antidote for physician uses is 4-methylpyrazaole, a potent inhibitor of alcohol dehydrogenases, which effectively blocks the formation of toxic metabolites of ethylene glycol. It has been used to decrease the metabolic consequences of ethylene glycol poisoning before metabolic acidosis coma, seizures, and renal failure have occured.

in humans is estimated to be 100 mL (3 oz).

SECTION 5: Firefighting measures		
5.1. Extinguishing media		
Suitable extinguishing media	: Water fog. Fine water spray. Foam. Carbon dioxide. Dry chemical powder. Sand.	
Unsuitable extinguishing media	: Do not use a heavy water stream. May spread fire.	
5.2. Special hazards arising from the sul	ostance or mixture	
Fire hazard	: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide. Product is not flammable or combustible but may burn under fire conditions.	
Reactivity	: No dangerous reactions known under normal conditions of use.	

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5.3.	Special protective equipment and precautions for fire-fighters		
Firefigh	ting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.	
Protect	ion during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.	

SECTION 6: Accidental release measures			
6.1. Personal precautions, protective	Personal precautions, protective equipment and emergency procedures		
6.1.1. For non-emergency personnel			
Emergency procedures	: Evacuate unnecessary personnel.		
6.1.2. For emergency responders			
Protective equipment	: Equip cleanup crew with proper protection. Refer to section 8.2.		
Emergency procedures	: Ventilate area.		
6.2. Environmental precautions			
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.			

6.3.	6.3. Methods and material for containment and cleaning up		
Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Store away from other materials.			
6.4.	Reference to other sections		

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

SECTION 7: Handling and storage		
7.1. Precautions for safe handling		
Precautions for safe handling	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.	
Hygiene measures	: Do not eat, drink or smoke when using this product. Wash affected areas thoroughly after handling.	
7.2. Conditions for safe storage, including	g any incompatibilities	
Storage conditions	: Keep only in the original container in a cool, well ventilated place away from : Heat sources. Keep container closed when not in use. Product may become solid at temperatures below -18 °C (0 °F). Do not store near food, foodstuffs, drugs or potable water supplies. Do not cut, drill, weld, use a blowtorch on, etc. containers even when empty.	
Incompatible products	: Keep away from strong acids, strong bases and oxidizing agents.	
Incompatible materials	: Sources of ignition.	
7.3. Specific end use(s)		

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ethylene glycol (107-21-1)			
ACGIH	Local name	Ethylene glycol	
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³	
ACGIH	ACGIH TWA (ppm)	25 ppm (Vapor fraction)	
ACGIH	ACGIH STEL (mg/m ³)	10 mg/m ³ (Inhalable fraction, Aerosol only)	
ACGIH	ACGIH STEL (ppm)	50 ppm (Vapor fraction)	
ACGIH	Remark (ACGIH)	Upper respiratory tract & eye irritant	
ACGIH	Regulatory reference	ACGIH 2018	
diethylene glycol (111-46-6)			
Not applicable			
denatonium benzoate (3734-33-6)			
Not applicable			
01/01/2024	EN (English)	3/0	

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water (7732-18-5) Not applicable

8.2. Appropriate engineering controls

No additional information available

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure. Gloves. Safety glasses.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses

Respiratory protection:

Respiratory protection not required in normal conditions. If exposed to levels above exposure limits wear appropriate respiratory protection.



Other information:

Do not eat, drink or smoke during use.

	l properties	
9.1. Information on basic physical and chemical properties		
hysical state	: Liquid	
lolecular mass	: 62.07 g/mol Ethylene Glycol	
Color	: Green	
Odor	: Mild	
Odor threshold	: No data available	
H 50% water solution	: 10.5 - 11	
elative evaporation rate (butylacetate=1)	: Nil	
reezing point	: -18 °C (0 °F)	
oiling point	: 158 °C (317 °F)	
lash point	: 116 °C (241 °F) [100% Ethylene Glycol] ASTM D56	
uto-ignition temperature	: 400 °C (752 °F) [100% Ethylene Glycol] <i>Literature</i>	
ecomposition temperature	: No data available	
lammability (solid, gas)	: No data available	
apor pressure	: < 0.1 mm Hg @ 20 °C	
elative vapor density at 20 °C	: No data available	
pecific Gravity	: 1.12	
ensity	: 1.12 kg/l (9.34 lbs/gal)	
olubility	: Water: Complete	
og Pow	: No data available	
og Kow	: No data available	
iscosity, kinematic	: No data available	
íiscosity, dynamic	: No data available	
xplosive limits	: 3.2 - 15.3 vol %	

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Explosive properties	: No data available
Explosive properties Oxidizing properties	: No data available
0.2. Other information	
/OC content	: 0%
SECTION 10: Stability and reactivity	
0.1. Reactivity	
lo dangerous reactions known under normal co	nditions of use.
10.2. Chemical stability	
Stable.	
10.3. Possibility of hazardous reactions	
No dangerous reactions known under normal co	nditions of use.
10.4. Conditions to avoid	
Extremely high or low temperatures. Keep away	from any flames or sparking source.
10.5. Incompatible materials	, i 5
Keep away from strong acids, strong bases and	
10.6. Hazardous decomposition products Alcohols. Aldehydes. Carbon dioxide. Carbon me	
SECTION 11: Toxicological informat	lon
11.1. Information on toxicological effects	
Acute toxicity	: Not classified
ethylene glycol (107-21-1)	
LD50 oral rat	7712 mg/kg bodyweight (according to BASF-internal standards, Rat, Male / female, Experimental value, Aqueous solution, Oral, 7 day(s))
LC50 inhalation rat (mg/l)	> 2.5 mg/l (6 h, Rat, Male / female, Experimental value, Inhalation (aerosol))
ATE US (oral)	500 mg/kg bodyweight
diethylene glycol (111-46-6)	
LD50 oral rat	19600 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male, Experimental value, Oral)
LD50 dermal rabbit	11890 mg/kg (Rabbit, Dermal)
LC50 inhalation rat (mg/l)	> 4.6 mg/l/4h (Other, 4 h, Rat, Weight of evidence)
ATE US (oral)	500 mg/kg bodyweight
ATE US (dermal)	11890 mg/kg bodyweight
denatonium benzoate (3734-33-6)	
LD50 oral rat LD50 dermal rabbit	584 mg/kg (Rat, Literature study, Oral) > 2000 mg/kg (Rabbit, Literature study, Dermal)
ATE US (oral)	584 mg/kg bodyweight
Skin corrosion/irritation	: Not classified
Skin conosion/initiation Serious eye damage/irritation	: Not classified
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	: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

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- Symptoms/effects : Causes damage to organs (kidneys) Oral. Symptoms/effects after skin contact
 - : May cause moderate irritation.
 - : Direct contact with the eyes is likely to be irritating.
- Symptoms/effects after eye contact Symptoms/effects after ingestion
- Swallowing a small quantity of this material will result in serious health hazard. The lethal dose in humans is estimated to be 100 mL (3 oz).

SECT	ION 12: Ecological information
12.1.	Toxicity

ethylene glycol (107-21-1)				
LC50 fish 1	40,761.00 mg/l (96 h, Salmo gairdneri, Static system)			
EC50 Daphnia 1	> 10,000.00 mg/l (24 h, Daphnia magna)			
diethylene glycol (111-46-6)				
LC50 fish 1	> 5,000.00 ppm (24 h, Carassius auratus)			
EC50 Daphnia 1	> 10,000.00 mg/l (24 h, Daphnia magna)			
LC50 fish 2	75,200.00 mg/l (Other, 96 h, Pimephales promelas, Flow-through system, Experimental value)			
EC50 Daphnia 2	> 10,000.00 mg/l (DIN 38412-11, 24 h, Daphnia magna, Static system, Fresh water, Experimental value)			
denatonium benzoate (3734-33-6)				
LC50 fish 1	> 1,000.00 mg/l (96 h, Salmo gairdneri, Literature study)			
EC50 Daphnia 1	13.00 mg/l (48 h, Daphnia magna, Literature study)			

12.2. Persistence and degradability

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			
diethylene glycol (111-46-6)				
Persistence and degradability	Biodegradable in the soil. Biodegradable in water.			
Biochemical oxygen demand (BOD)	0.02 g O ₂ /g substance			
Chemical oxygen demand (COD)	1.51 g O ₂ /g substance			
ThOD	1.51 g O ₂ /g substance			
BOD (% of ThOD)	0.02			
denatonium benzoate (3734-33-6)				
Persistence and degradability	Biodegradability in water: no data available. No (test) data on mobility of the substance available.			

12.3. **Bioaccumulative potential**

ethylene glycol (107-21-1)			
BCF fish 1	10.00 (72 h, Leuciscus idus)		
BCF other aquatic organisms 1	0.21 - 0.6 (Procambarus sp., Chronic)		
BCF other aquatic organisms 2	190.00 (24 h, Algae)		
Log Pow	-1.34 (Experimental value)		
Bioaccumulative potential	Not bioaccumulative.		
diethylene glycol (111-46-6)			
BCF fish 1	100.00 (Other, 3 day(s), Leuciscus melanotus, Static system, Fresh water, Experimental value)		
Log Pow	-1.98 (Calculated, Other)		
Bioaccumulative potential	Not bioaccumulative.		
denatonium benzoate (3734-33-6)			
Log Pow	1.78 (Estimated value)		
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).		
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12.4. Mobility in soil				
ethylene glycol (107-21-1)				
Surface tension	48.00 mN/m (20 °C)			
Ecology - soil	No (test)data on mobility of the substance available.			
diethylene glycol (111-46-6)				
Surface tension	0.05 N/m			
Log Koc	0.00 (log Koc, SRC PCKOCWIN v1.66, Calculated value)			
Ecology - soil	Highly mobile in soil.			
denatonium benzoate (3734-33-6)				
Ecology - soil	No (test)data on mobility of the substance available.			
12.5. Other adverse effects				
Effect on the ozone layer	: No known effect on the ozone layer			
Other information	: Avoid release to the environment.			
SECTION 13: Disposal consideration	S			
13.1. Waste treatment methods				
Product/Packaging disposal recommendations	: Dispose of contents/container to appropriate waste disposal facility, in accordance with local/regional/national/international regulations.			
Ecology - waste materials	: Avoid release to the environment.			
SECTION 14: Transport information				

Department of Transportation (DOT)

In accordance with DOT

Non Bulk (in quantities under 5,000 lbs in any one inner package): Not regulated by the US DOT

Bulk (in quantities 5,000 lbs or over in any one inner package):

Transport document description	:	UN3082 Environmentally hazardous substances, liquid, n.o.s. (Ethylene Glycol), 9, III
UN-No.(DOT)	:	UN3082
Proper Shipping Name (DOT)	:	Environmentally hazardous substances, liquid, n.o.s. Ethylene Glycol
Class (DOT)	:	9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Packing group (DOT)	:	III - Minor Danger
Hazard labels (DOT)	:	9 - Class 9 (Miscellaneous dangerous materials)
DOT Packaging Non Bulk (49 CFR 173.xxx)	:	203
DOT Packaging Bulk (49 CFR 173.xxx)	:	241
DOT Symbols	:	G - Identifies PSN requiring a technical name
DOT Packaging Exceptions (49 CFR 173.xxx)	:	155
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	No limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	No limit
DOT Vessel Stowage Location	:	A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Other information	:	No supplementary information available.

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Transportation of Dangerous Goods

Refer to current TDG Canada for further Canadian regulations

Transport by sea

In accordance with IMDG / IMO

Proper Shipping Name (IMDG)

: Not regulated by IMDG (in quantites under 5,000 lbs in any one inner package)

Air transport

In accordance with IATA / ICAO

Proper Shipping Name (IATA)

: Not regulated by IATA (in quantites under 5,000 lbs in any one inner package)

SECTION 15: Regulatory information

15.1. US Federal regulations

Full Force Conventional Green Concentrate Antifreeze and Coolant			
EPA TSCA Regulatory Flag	Toxic Substances Control Act (TSCA): The intentional ingredients of this product are listed		

ethylene glycol (107-21-1)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory			
Subject to reporting requirements of United States SARA Section 313			
EPA TSCA Regulatory Flag T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.			
CERCLA RQ 5000 lb(s)			
SARA Section 311/312 Hazard Classes Refer to Section 2 for the OSHA hazard classification			
Ethylene glycol is subject to Tier I and/or Tier II annual inventory reporting.			
SARA Section 313 - Emission Reporting Ethylene glycol is subject to Form R Reporting requirements.			
diethylene glycol (111-46-6)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory			
denatonium benzoate (3734-33-6)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory			
water (7732-18-5)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory			

15.2. International regulations

CANADA

Full Force Conventional Green Concentrate Antifreeze and Coolant		
	This SDS has been prepared according to the criteria of the Hazardous Products Regulations (HPR) (WHMIS 2015) and the SDS contains all of the information required by the HPR. Applicable GHS information is listed in section 2.2 of this SDS.	

15.3. US State regulations

This product can expose you to ethylene glycol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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		(ingested) 8,700 (oral) µg/day	

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ethylene glycol (107-21-1)	
U.S Massachusetts - Right To Know List U.S New Jersey - Right to Know Hazardous Substance List U.S Pennsylvania - RTK (Right to Know) List	
diethylene glycol (111-46-6)	
U.S Pennsylvania - RTK (Right to Know) - Environmental Hazard List	

SECTION 16: Other information	
Revision date	: 01/01/2024

Full text of H-statements:

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
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 NFPA reactivity : 1 - Materials that must be preheated before ignition can occur.

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



SDS GHS US (GHS HazCom 2012) OWI 1

Old World Industries, LLC makes no warranty, representation or guarantee as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of this product. Since actual use by others is beyond our control, no warranty, expressed or implied, is made by Old World Industries, LLC as to the effects of such use, the results to be obtained or the safety and toxicity of this product, nor does Old World Industries, LLC as to the affects of such use, the results to be obtained or the safety and toxicity of this product, nor does Old World Industries, LLC assume liability arising out of the use by others of this product referred to herein. The data in this SDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.