

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 03/15/2016

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture

Product name : Final Charge Global 50/50 Prediluted Antifreeze and Coolant

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

Use of the substance/mixture : Heavy Duty Engine Coolant

#### 1.3. Details of the supplier of the safety data sheet

Old World Industries, LLC 4065 Commercial Ave. Northbrook, IL 60062 - USA T (847) 559-2000 www.oldworldind.com

#### 1.4. Emergency telephone number

Emergency number : (800) 424-9300; (703) 527 3887 (International)

Chemtrec

#### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

#### **GHS-US** classification

Acute toxicity (oral), Category 4 H302 Reproductive toxicity, Category 2 H361 Specific target organ toxicity — Repeated exposure, Category 2 H373

Full text of H statements : see section 16

#### 2.2. Label elements

## **GHS-US** labelling

Hazard pictograms (GHS-US)





GHS07

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H302 - Harmful if swallowed

H361 - Suspected of damaging fertility or the unborn child

H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (oral)

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P260 - Do not breathe mist, spray, vapors

P264 - Wash affected areas thoroughly after handling P270 - Do not eat, drink or smoke when using this product P280 - Wear personal protective equipment as required

P301+P310 - If swallowed: Immediately call doctor/physician or poison center P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing

P308+P313 - If exposed or concerned: Get medical advice/attention

P405 - Store locked up

P501 - Dispose of contents/container to appropriate waste disposal facility, in accordance with local/regional/national/international regulations

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

No data available

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#### **SECTION 3: Composition/information on ingredients**

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	% by wt	GHS-US classification
ethylene glycol	(CAS No) 107-21-1	<= 50	Acute Tox. 4 (Oral), H302
water	(CAS No) 7732-18-5	< 50	Not classified
diethylene glycol	(CAS No) 111-46-6	< 3	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
sodium benzoate	(CAS No) 532-32-1	< 2	Acute Tox. 4 (Dermal), H312
potassium p-tert-butylbenzoate	(CAS No) 16518-26-6	< 2	Repr. 2, H361
denatonium benzoate	(CAS No) 3734-33-6	30 - 50 ppm	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

## **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

First-aid measures general

First-aid measures after inhalation

: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get

medical advice/attention.

: 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 breathing is difficult, give oxygen. If you

feel unwell, seek medical advice.

First-aid measures after skin contact : Remove contaminated clothing. Wash with plenty of soap and water. 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 effects, both acute and delayed

Symptoms/injuries : Causes damage to organs (kidneys) Oral. Suspected of damaging fertility or the unborn child.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries 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).

## 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.

#### **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 substance 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.

Reactivity : No dangerous reactions known under normal conditions of use.

#### 5.3. Advice for firefighters

Firefighting 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.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

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Special protective equipment for fire fighters

: Wear positive pressure self-contained breathing apparatus (SCBA). Protective fire fighting clothing (includes fire-fighting helmet, coat, pants, boots and gloves).

#### **SECTION 6: Accidental release measures**

#### 6.1. 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. 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. Obtain special instructions before use. Do not handle until all safety precautions have

been read and understood.

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 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 -37 °C (-34 °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	ACGIH TWA (mg/m³)	10 mg/m³
ACGIH	Remark (ACGIH)	Upper Respiratory Tract (URT) & Eye irritant
OSHA	Not applicable	

#### 8.2. Exposure controls

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.

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Other information : Do not eat, drink or smoke during use.

## **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : Red
Odor : Mild

Odor threshold : No data available

pH : 8.6 Relative evaporation rate (butylacetate=1) : Nil

Freezing point : -37 °C (-34 °F) Boiling point : 107 °C (224 °F)

Flash point : 116 °C (241 °F) [100% Ethylene Glycol] ASTM D56 Auto-ignition temperature : 400 °C (752 °F) [100% Ethylene Glycol] Literature

Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapor pressure : < 0.1 mm Hg @ 20 °C
Relative vapor density at 20 °C : No data available

Specific Gravity : 1.07

: 1.07 kg/l (8.91 lbs/gal) Density Solubility : Water: Complete Log Pow : No data available : No data available Log Kow : No data available Viscosity, kinematic Viscosity, dynamic : No data available Explosive properties : Not applicable. Oxidizing properties : Not applicable. Explosive limits : Not applicable

9.2. Other information

VOC content : 0

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

#### 10.2. Chemical stability

Stable.

#### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

## 10.4. Conditions to avoid

Extremely high or low temperatures. Keep away from any flames or sparking source.

#### 10.5. Incompatible materials

Keep away from strong acids, strong bases and oxidizing agents.

#### 10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Fume. alcohols. Aldehydes. Ethers.

### **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

denatonium benzoate (3734-33-6)	
LD50 oral rat	584.00 mg/kg (Rat; Literature study)
LD50 dermal rabbit	> 2,000.00 mg/kg (Rabbit; Literature study)

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denatonium benzoate (3734-33-6)		
ATE US (oral)	584.00 mg/kg bodyweight	
sodium benzoate (532-32-1)		
LD50 oral rat	> 2,700.00 mg/kg (Rat)	
LD50 dermal rat	> 7,940.00 mg/kg (Rat)	
LD50 dermal rabbit	2,000.00 mg/kg (Rabbit)	
ATE US (dermal)	2,000.00 mg/kg bodyweight	
ethylene glycol (107-21-1)		
LD50 oral rat	> 5,000.00 mg/kg (Rat; Literature study)	
ATE US (oral)	500.00 mg/kg bodyweight	
diethylene glycol (111-46-6)		
LD50 dermal rabbit	11,890.00 mg/kg (Rabbit)	
ATE US (oral)	500.00 mg/kg bodyweight	
ATE US (dermal)	11,890.00 mg/kg bodyweight	

Skin corrosion/irritation : Not classified

pH: 8.60

Serious eye damage/irritation : Not classified

pH: 8.60 Not class

Respiratory or skin sensitisation : Not classified Germ cell mutagenicity : Not classified Carcinogenicity : Not classified

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (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.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries 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).

## **SECTION 12: Ecological information**

#### 12.1. Toxicity

denatonium benzoate (3734-33-6)		
LC50 fish 1	> 1,000.00 mg/l (LC50; 96 h; Salmo gairdneri)	
EC50 Daphnia 1	13.00 mg/l (EC50; 48 h; Daphnia magna)	
sodium benzoate (532-32-1)		
LC50 fish 1	> 100.00 mg/l (LC50; 96 h; Pimephales promelas)	
EC50 Daphnia 1	< 650.00 mg/l (EC50; 48 h)	
EC50 Daphnia 2	> 100.00 mg/l (EC50; 48 h)	
ethylene glycol (107-21-1)		
EC50 Daphnia 1	> 10,000.00 mg/l (EC50; 24 h)	
LC50 fish 2	40,761.00 mg/l (LC50; 96 h; Salmo gairdneri)	
diethylene glycol (111-46-6)		
LC50 fish 1	> 5,000.00 mg/l (LC50; 24 h)	

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diethylene glycol (111-46-6)	
EC50 Daphnia 1	> 10,000.00 mg/l (EC50; 24 h)

### 12.2. Persistence and degradability

denatonium benzoate (3734-33-6)		
Persistence and degradability	Biodegradability in water: no data available. No (test) data on mobility of the substance available.	
sodium benzoate (532-32-1)		
Persistence and degradability	Readily biodegradable in water.	
ethylene glycol (107-21-1)		
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.	
Biochemical oxygen demand (BOD)	0.47 g O <sub>2</sub> /g substance	
Chemical oxygen demand (COD)	1.24 g O₂/g substance	
ThOD	1.29 g O₂/g substance	
BOD (% of ThOD)	0.36	
diethylene glycol (111-46-6)		
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil. Photolysis in the air.	
Biochemical oxygen demand (BOD)	0.02 g O <sub>2</sub> /g substance	
Chemical oxygen demand (COD)	1.51 g O <sub>2</sub> /g substance	
ThOD	1.51 g O₂/g substance	
BOD (% of ThOD)	0.02	

#### 12.3. Bioaccumulative potential

denatonium benzoate (3734-33-6)		
BCF fish 1	1.4 - 3.6 (BCF; BCFBAF v3.00)	
Log Pow	1.78 (Estimated value)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
sodium benzoate (532-32-1)		
Log Pow	0.84	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
ethylene glycol (107-21-1)		
BCF fish 1	10.00 (BCF; 72 h)	
BCF other aquatic organisms 1	0.21 - 0.6 (BCF)	
BCF other aquatic organisms 2	190.00 (BCF; 24 h)	
Log Pow	-1.34 (Experimental value)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
diethylene glycol (111-46-6)		
BCF fish 1	100.00 (BCF; Other; 3 days; Leuciscus melanotus; Static system; Fresh water; Experimental value)	
Log Pow	-1.98 (Calculated; Other)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	

## 12.4. Mobility in soil

ethylene glycol (107-21-1)		
Surface tension	0.05 N/m (20 °C / 68 °F)	
diethylene glycol (111-46-6)		
Surface tension	0.05 N/m	
Log Koc	Koc,SRC PCKOCWIN v1.66; 1; Calculated value; log Koc; SRC PCKOCWIN v1.66; 0; Calculated value	

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#### Other adverse effects

Effect on ozone layer : No known effect on the ozone layer Effect on global warming : No known effects from this product. Other information : Avoid release to the environment.

#### **SECTION 13: Disposal considerations**

#### Waste treatment methods

Waste 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

Transport document description : UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III

UN-No.(DOT) : UN3082

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

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) DOT Quantity Limitations Passenger aircraft/rail : No limit

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : No limit

CFR 175.75)

**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 : Non Bulk: Not regulated by the US D.O.T. (in quantities under 5,000 lbs in any one inner

package).

#### **TDG**

## Refer to current TDG Canada for further Canadian regulations

#### Transport by sea

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

#### Air transport

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

#### **SECTION 15: Regulatory information**

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#### 15.1. US Federal regulations

Final Charge Global 50/50 Prediluted Antifreeze and Coolant	
EPA TSCA Regulatory Flag	Toxic Substances Control Act (TSCA): The intentional ingredients of this product are listed

#### denatonium benzoate (3734-33-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

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	Immediate (acute) health hazard Delayed (chronic) health hazard 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		

#### 15.2. International regulations

#### **CANADA**

Final Charge Global 50/50 Prediluted Antifreeze and Coolant	
WHMIS Classification	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

#### potassium p-tert-butylbenzoate (16518-26-6)

Listed on the Canadian NDSL (Non-Domestic Substances List)

#### **EU-Regulations**

No additional information available

#### **National regulations**

### Final Charge Global 50/50 Prediluted Antifreeze and Coolant

DSL (Canada): The intentional ingredients of this product are listed ECL (South Korea): The intentional ingredients of this product are listed EINECS (Europe): The intentional ingredients of this product are listed ENCS (Japan): The intentional ingredients of this product are listed

#### 15.3. US State regulations

California Proposition 65 - This product contains, or may contain, substance(s) known to the state of California to cause cancer, developmental toxicity and/or reproductive toxicity

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	Non-significant risk level (NSRL)	
No	Yes	No	No		

#### 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

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#### **SECTION 16: Other information**

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#### Full text of H-statements:

H302	Harmful if swallowed	
H312	Harmful in contact with skin	
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	

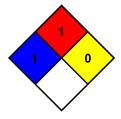
NFPA health hazard : 1 - Exposure could cause irritation but only minor residual

injury even if no treatment is given.

NFPA fire hazard : 1 - Must be preheated before ignition can occur.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions,

and are not reactive with water.



**HMIS III Rating** 

Health : 2 Moderate Hazard - Temporary or minor injury may occur

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 (93 °C). (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

SDS GHS US (GHS HazCom 2012) OWI

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 rold 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.

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