

Safety Data Sheet

Section 1. Identification

Product name	: WATERFLOW 2000 PLUMBERS KIT
Product code	: AM53949
Product type	: Liquid.
Date of issue/Date of revision	: May 15 2015.

Manufacturer - Supplier	Telephone no.:	Fax no.	Emergency phone:
ALPHA Global Headquarters 300 Atrium Drive Somerset, New Jersey 08873	Toll Free: (800) 367-5460 Main Phone: (908) 791-3000	(908) 791-3090	UNITED STATES AND CANADA Tel: 800-424-9300 INTERNATIONAL, CALL Tel: +1 703-527-3887 (collect calls accepted) Alpha Chemtrec #5591
ALPHA METALS MEXICO SA DE CV Ave Nafta 800, Parque Industrial STIVA Apodaca NL 66600 Mexico	Tel: +52 81 1156-6602	Fax: +52 81 1156-6655	Tel: 01 800 022 1400 Tel: +52 55 5559-1588
Alent Brasil Soldas Ltda. Rio Jaguarão, 1540 - Vila Buriti Manaus Amazonas 69072-055 Brasil	Tel: 55 92 3614-7400	Fax: 55 92 3614-7400	Tel: 55 92 3614-7423

Section 2. Hazards identification

OSHA/HCS status	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture	: Not classified.
GHS label elements	
Signal word	: No signal word.
Hazard statements	: No known significant effects or critical hazards.
Precautionary statements	
General	: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention	: Do not eat, drink or smoke when using this product.
Response	: Get medical attention if you feel unwell.
Storage	: Store in cool/well-ventilated place. Keep container tightly closed.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
tin	50-60	7440-31-5
polyether 1	10-20	-
Proprietary Polymer	1-10	-
copper	1-10	7440-50-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

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Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
tin	OSHA PEL (United States, 9/2005). TWA: 2 mg/m ³ 8 hours.
Proprietary Polymer	ACGIH TLV (United States, 4/2014). TWA: 2 mg/m ³ , (as Sn) 8 hours.
	NIOSH REL (United States, 10/2013). TWA: 2 mg/m ³ , (as Sn) 10 hours.
	AIHA WEEL (United States, 10/2011). TWA: 10 mg/m ³ 8 hours. Form: Aerosol
	AIHA WEEL (United States, 5/2007). TWA: 10 mg/m ³ Form: Aerosol.
copper	OSHA Final Rule (United States, 1989). Notes: As copper TWA: 1 mg/m ³ 8 hours. Form:
	TWA: 0.1 mg/m ³ 8 hours. Form:
	ACGIH TLV (United States, 4/2014). Notes: as Cu TWA: 1 mg/m ³ , (as Cu) 8 hours. Form: Dust and mist
	NIOSH REL (United States, 10/2013). Notes: Note: The REL and PEL also apply to other copper compounds (as Cu) except Copper fumes.
	TWA: 1 mg/m ³ , (as Cu) 10 hours. Form: Dusts and Mists
	OSHA PEL (United States, 2/2013). TWA: 1 mg/m ³ 8 hours. Form: Dusts and Mists
	TWA: 0.1 mg/m ³ 8 hours. Form: Fume
	ACGIH TLV (United States, 4/2014). Notes: Substances for which the TLV is higher than the OSHA Permissible Exposure Limit (PEL) and/or the NIOSH Recommended Exposure Limit (REL). See CFR 58(124) :36338-33351, June 30, 1993, for revised OSHA PEL. Adopted Values enclosed are those for which changes are proposed. Consult the Notice of Intended Changes for current proposal. See Notice of Intended changes.
	TWA: 0.2 mg/m ³ 8 hours. Form: Fume

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

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Section 8. Exposure controls/personal protection

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Gray.
- Odor** : None.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Not available.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : Not available.
- Solubility** : Insoluble in the following materials: cold water and hot water.
- VOC** : 233.7 g/l
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Not available.

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Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Incompatibility with various substances** : Reactive or incompatible with the following materials: oxidizing materials, reducing materials, acids, alkalis and moisture.
Chlorine, peroxides
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Other Hazardous decomposition products** : metal oxides, Toxic fumes
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
tin	LD50 Oral	Rat	>2000 mg/kg	-
polyether 1	LD50 Oral	Mouse	1830 mg/kg	-
	LD50 Oral	Rat	5700 mg/kg	-
Proprietary Polymer	LD50 Dermal	Rabbit	>20000 mg/kg	-
	LD50 Oral	Mouse	20000 mg/kg	-
	LD50 Oral	Rat	4000 mg/kg	-
	LD50 Oral	Rat	27500 mg/kg	-
copper	LC50 Inhalation Dusts and mists	Rat	5.11 mg/l	4 hours

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Proprietary Polymer	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

No applicable toxicity data

Additional information:

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

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Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Proprietary Polymer	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	76923.1 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
polyether 1	Acute EC50 >100 mg/l	Algae	72 hours
	Acute EC50 >100 mg/l	Daphnia	48 hours
Proprietary Polymer	Acute LC50 46.4 to 100 mg/l	Fish	96 hours
	Acute EC50 >10000 mg/l	Daphnia	48 hours
copper	Acute LC50 >5000 mg/l	Fish	24 hours
	Acute LC50 >1000000 µg/l Fresh water	Fish - Salmo salar - Parr	96 hours
	Acute EC50 1100 µg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute EC50 2.1 µg/l Fresh water	Daphnia - Daphnia longispina - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute IC50 13 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute IC50 5.4 mg/l Marine water	Aquatic plants - Plantae - Exponential growth phase	72 hours
	Acute LC50 0.072 µg/l Marine water	Crustaceans - Amphipoda - Adult	48 hours
	Acute LC50 7.56 µg/l Marine water	Fish - Periophthalmus waltoni - Adult	96 hours
	Chronic NOEC 2.5 µg/l Marine water	Algae - Nitzschia closterium - Exponential growth phase	72 hours
	Chronic NOEC 7 mg/l Fresh water	Aquatic plants - Ceratophyllum demersum	3 days
Chronic NOEC 0.02 mg/l Fresh water	Crustaceans - Cambarus bartonii - Mature	21 days	
Chronic NOEC 2 µg/l Fresh water	Daphnia - Daphnia magna	21 days	
Chronic NOEC 0.8 µg/l Fresh water	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling)	6 weeks	

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Proprietary Polymer	-	3.2	low

Mobility in soil











Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	UN	IMDG	IATA
UN number	Not regulated.	UN3082	UN3082	UN3082	UN3082	UN3082
UN proper shipping name	-	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport hazard class(es)	-	9  	9  	9  	9  	9  
Packing group	-	-	-	-	-	-
Environmental hazards	No.	Yes.	Yes.	Yes.	Yes.	Yes.

Additional information - TDG Classification	The product is not regulated as a dangerous good when transported by road or rail.
Additional information - Mexico Classification	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Additional information - UN Classification	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Additional information - IMDG Classification	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Additional information - IATA Classification	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.

Special precautions for user : **Transport within user's premises**: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations : TSCA 5(a)2 proposed significant new use rule (SNUR): No products were found.
 TSCA 5(a)2 final significant new use rule (SNUR): No products were found.
 TSCA 12(b) one-time export notification: No products were found.
 TSCA 12(b) annual export notification: No products were found.

United States inventory (TSCA 8b) : All components are listed or exempted.

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : Not applicable.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	copper	7440-50-8	1-10
Supplier notification	copper	7440-50-8	1-10

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

California Prop. 65

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada

WHMIS (Canada) : Class D-2B: Material causing other toxic effects (Toxic).

Canada inventory : All components are listed or exempted.

International lists

National inventory

Australia : All components are listed or exempted.

China : All components are listed or exempted.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Taiwan : All components are listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	2
Flammability	0
Physical hazards	0

Procedure used to derive the classification

Classification	Justification
Not classified.	

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Section 16. Other information

History

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Prepared by : **Regulatory Affairs Department**
Enthone Inc
350 Frontage Road
West Haven, CT 06516
Phone: (203) 934-8611
Fax: (203) 799-8179
enthonemsds@enthone.com
www.enthone.com

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

☑ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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