

Material Safety Data Sheet

WHMIS	TDG Road/Rail	Health Hazard *	0
		Fire Hazard	0
		Reactivity	0
		Personal Protection	A

This MSDS is provided as information only. This product is not WHMIS regulated. This product is regulated under CCCR regulation. Packaged as a consumer good.

1. Product and company identification

Product name	: OCEAN SALT REVISE	Code	: 30-18510
Date of issue (yyyy/mm/dd)	: 2014-12-09.	Material uses	: Consumer products: Pool & Spa water treatment product
Supplier	: Perfect Logic 42, rue de l'artisan Victoriaville, Quebec G6P 7E3	Manufacturer	: Manufactured for: Perfect Logic 42, rue de l'artisan Victoriaville, Quebec G6P 7E3

In case of emergency : Emergency phone: CANUTEC (613) 996-6666 (Collect calls accepted)

2. Hazards identification

Potential hazards described in this section are not expected when manufacturer's direction for use and proper security measures are observed.

Physical state	: Solid. [Powder.]	Odor	: Odorless.
Emergency overview	Caution Slightly irritating to the eyes and skin. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.		
Routes of entry	: Dermal contact. Eye contact. Inhalation. Ingestion.		
<u>Potential acute health effects</u>			
Inhalation	: No known significant effects or critical hazards.		
Ingestion	: No known significant effects or critical hazards.		
Skin	: Slightly irritating to the skin.		
Eyes	: Slightly irritating to the eyes.		
See toxicological information (Section 11) for more details.			

See toxicological information (Section 11) for more details.

3. Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>% (w/w)</u>
boric acid	10043-35-3	60 - 100
sodium hydrogensulphate	7681-38-1	10 - 30
2,3-didehydro-D-erythro-hexono-1,4-lactone	89-65-6	1 - 5
disodium tetraborate pentahydrate	12179-04-3	1 - 5

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.

4. First aid measures

Eye contact	: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
Skin contact	: In case of contact, immediately flush skin with plenty of water for at least 20 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Get medical attention immediately.
Inhalation	: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
Ingestion	: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

5. Fire-fighting measures

Flammability of the product	: No specific fire or explosion hazard.
Extinguishing media	
Suitable	: Use an extinguishing agent suitable for the surrounding fire.
Not suitable	: None known.
Special exposure hazards	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. Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides metal oxide/oxides
Hazardous thermal decomposition products	
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.

6. Accidental release measures

Personal precautions	: 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. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
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 for cleaning up

Small spill	: Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

Handling	: Put on suggested personal protective equipment when handling the product. Avoid contact with skin and eyes. Do not ingest. This product is formulated for commercial, institutional and industrial uses only.
Storage	: Store in cool ventilated place. Keep container tightly closed when product is stored. Protect from freezing. Keep out of reach of children.

8. Exposure controls/personal protection

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			Notations
Ingredient	List name	ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	
boric acid	US ACGIH 4/2014	-	2	-	-	6	-	-	-	-	[a]
	BC 4/2014	-	2	-	-	6	-	-	-	-	[b]
	ON 1/2013	-	2	-	-	6	-	-	-	-	[a]
	US ACGIH 4/2014	-	2	-	-	6	-	-	-	-	[a]
disodium tetraborate pentahydrate	AB 4/2009	-	1	-	3	-	-	-	-	-	[3]
	BC 4/2014	-	2	-	-	6	-	-	-	-	[b]
	ON 1/2013	-	2	-	-	6	-	-	-	-	[a]
	ON 1/2013	-	2	-	-	6	-	-	-	-	[a]
[3]Skin sensitization Form: [a]Inhalable fraction [b]Inhalable											

Consult local authorities for acceptable exposure limits.

Engineering measures	: Général room ventilation is adequate for the use of this product.
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.

Personal protection

Respiratory	: No specific protective equipment suggested
Hands	: It is suggested to use chemical impervious protective gloves when using this product
Eyes	: It suggested to wear safety glasses when handling or using chemical products.
Skin	: 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.

9. Physical and chemical properties

Physical state	: Solid. [Powder.]	Molecular formula	: Not applicable.	Flammable limits	: Not available.
Color	: White.	Molecular weight	: Not applicable.	Burning rate	: Not available.
Odor	: Odorless.	Vapor pressure	: Not available.	Burning time	: Not available.
Relative density	: 1	Vapor density	: Not available.	Critical temperature	: Not available.
pH	: 1.3 [Conc. (% w/w): 10%]	Volatility	: Not available.	Auto-ignition temperature	: Not available.
Viscosity	: Not available.	Evaporation rate	: Not available.	Flash point	: [Product does not sustain combustion.]
Odor threshold	: Not available.	Ionicity (in water)	: Not available.	Dispersibility properties	: Not available.
Solubility	: Soluble in the following materials: hot water. Very slightly soluble in the following materials: cold water. Insoluble in the following materials: methanol.				
Melting/freezing point	: Not available.			Boiling/condensation point	: Not available.

9. Physical and chemical properties

10. Stability and reactivity

Chemical stability	: The product is stable.
Conditions to avoid	: No specific data.
Materials to avoid	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

The symptoms, hazards and situations described in this section are not expected when manufacturer's direction for use, proper security measures and given professional exposure limits are correctly followed.

Potential chronic health effects

Chronic effects	:
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.
Target organs	: Contains material which causes damage to the following organs: mucous membranes. Contains material which may cause damage to the following organs: kidneys, the nervous system, gastrointestinal tract, upper respiratory tract, skin, eyes.

Over-exposure signs/symptoms

Inhalation	: Not a usual way of absorption
Ingestion	: No specific data.
Skin	: Adverse symptoms may include the following: irritation redness
Eyes	: Adverse symptoms may include the following: irritation watering redness

Medical conditions aggravated by over-exposure

Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
boric acid	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	2660 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
2,3-didehydro-D-erythro-hexono-1,4-lactone	LD50 Oral	Rat	18 g/kg	-
	LD50 Oral	Rat	2490 mg/kg	-
	LD50 Oral	Rat	2800 mg/kg	-
disodium tetraborate pentahydrate	LC50 Inhalation Vapor	Rat	>5 mg/l	4 hours
	LD50 Dermal	Rat	2000 mg/kg	-
	LD50 Oral	Rat	3800 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
boric acid	Skin - Mild irritant	Human	-	72 hours 15 milligrams Intermittent	-
disodium tetraborate pentahydrate	Eyes - Severe irritant	Rabbit	-	100 milligrams	-

Carcinogenicity Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
boric acid	A4	-	-	-	-	-
sodium hydrogensulphate	-	3	-	-	-	None.
disodium tetraborate pentahydrate	A4	-	-	-	-	-

12. Ecological information

Ecotoxicity : Readily biodegradable

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Exposure	Species
boric acid	-	Acute LC50 84.28 mg/l Marine water	48 hours	Crustaceans - Opossum shrimp - Americamysis bahia - Juvenile (Fledgling, Hatchling, Weanling)
	-	Acute LC50 133 mg/l	48 hours	Daphnia - daphnia
	-	Acute LC50 100000 µg/l Fresh water	96 hours	Fish - Colorado squawfish - Ptychocheilus lucius -

12. Ecological information

	-	Acute LC50 46 mg/l	72 hours	Juvenile (Fledgling, Hatchling, Weanling)
	-	Chronic NOEC 6000 µg/l Fresh water	21 days	Fish - Goldfish
	-	Chronic NOEC 2100 µg/l Fresh water	87 days	Daphnia - Water flea - Daphnia magna
sodium hydrogensulphate	-	Acute EC50 190 mg/l	48 hours	Fish - Rainbow trout, donaldson trout - Oncorhynchus mykiss
				Daphnia - Daphnia magna

Toxicity of the products of biodegradation : The products of biodegradation are as toxic as the original product.

13. Disposal considerations

Waste disposal : 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Waste stream : Not available.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	Not regulated.	-	-	-		-
TDG Classification	Not regulated.	-	-	-		-

PG* : Packing group

15. Regulatory information

United States inventory (TSCA 8b)

WHMIS (Canada)

Canadian lists

: All components are listed or exempted.
 : Not controlled under WHMIS (Canada).
 : **CEPA Toxic substances**: None of the components are listed.
Canadian ARET: None of the components are listed.
Canadian NPRI: None of the components are listed.
Alberta Designated Substances: None of the components are listed.
Ontario Designated Substances: None of the components are listed.
Quebec Designated Substances: None of the components are listed.

Canada inventory

Other certification

:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.


16. Other information on the product

Label requirements : MAY CAUSE EYE AND SKIN IRRITATION.

Date of printing (YYYY-MM-DD) : 2014-12-09.

Date of issue (YYYY-MM-DD) : 2014-12-09.

Note: MSDS are valid for a 3 years period after the date of issue

 Indicates information that has changed from previously issued version.

MSDS prepared by:
 QA and Documentation Department
 Manufactured for:
 Perfect Logic
 42, rue de l'artisan
 Victoriaville, Quebec
 G6P 7E3

Notice to reader

There are potential hazards to people and goods associated with the use of this product which are detailed in the present Material Safety Data Sheet (MSDS). To minimize potential hazards associated with this product it is of users responsibility to conform the directions for use and all other instructions provided in the Material Safety Data Sheet (MSDS) of this product. The manufacturer, distributors and suppliers of this product are exonerating themselves and consequently shall not be liable for any prejudice or damage of any kind, resulting from the use of this product which may not be in accordance with the directions for use or all the instructions provided in the present Material Safety Data Sheet (MSDS) or resulting from an unadvised use of the present product..

Emergency phone: CANUTEC (613) 996-6666 (Collect calls accepted)