Safety Data Sheet
AQUARIAN C405

1. Identification

Product identifier	AQUARIAN C405
Product code	C405
Other means of identification	None.
Recommended use of the chemical and restrictions on use	Cooling water treatment.
Manufacturer	AQUARIAN CHEMICALS INC. 768 Westgate Road Oakville, Ontario Canada L6L 5N2 Tel. 905-825-3711 Fax 905-825-0177 www.aquarianchemicals.com info@aquarianchemicals.com
Emergency phone number	Canutec: 613-996-6666

2. Hazard identification

Summary	Avoid contact with skin, eyes and clothing. Do not breathe vapors, mists or aerosols. Do not ingest. If ingested consult physician immediately and show this Safety Data Sheet. Wear eye protection, gloves, respiratory protection and other protective clothing that are adapted to the task being performed and the risks involved.

WHMIS 2015/OSHA HCS 2012/GHS

Not Regulated under WHMIS 2015/GSH

P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P103: Read label before use.
P264: Wash face, hands and any exposed skin thoroughly after handling.
P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

3. Composition/information on ingredients

Common name	CAS	Weight % content
Sodium molybdate dihydrate	10102-40-6	1 - 3 %
Sodium metaborate tetrahydrate	10555-76-7	2 - 4 %
Sodium Lingnosulfonate	8061-51-6	0.1 - 0.3 %
Sodium tolyltriazole	64665-57-2	0.1 – 0.4%

4. First-aid measures

Inhalation	Move person to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth resuscitation unless you use a buccal protective device. If a problem develops or persists, seek medical attention.
Skin contact	Flush with water for at least 15 minutes. Remove contaminated clothing and wash before reuse. If a problem develops or persists, seek medical attention. Suitable emergency safety shower facility should be immediately available.
Eye contact	IMMEDIATELY flush with plenty of water. Remove contact lenses after the first 5 minutes. Hold eyelids apart to rinse properly. Flush with water for at least 15 minutes. Do not rub your eyes. Consult a physician, preferably an ophthalmologist.
Ingestion	DO NOT induce vomiting, unless recommended by medical personnel. If victim is conscious wash out mouth with water and give 1-2 glasses of water to drink. Never give anything by mouth if victim is unconscious or convulsing. If spontaneous vomiting occurs, keep head below hips level to prevent aspiration into the lungs. Seek medical attention or contact a Poison Centre immediately.
Other	No information available.
Symptoms	May cause redness and slight irritation of the skin and to eyes.
Notes to the physician	Treat according to person's condition and specifics of exposure.

5. Fire-fighting measures

Suitable extinguishing media	Dried powder, water spray, carbon dioxide (CO2), chemical foam.
Specific hazards arising from the chemical	In a fire or if heated, a pressure increase will occur and the container may burst.
Special protective equipment	Firefighting suit may not be efficient against chemicals. Firefighters must wear self contained breathing apparatus with full face mask.
Special protective actions for fire-fighters	Water spray can be used to cool equipment exposed to heat and flame. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
Environmental precautions	Prevent entry in sewer and other enclosed area. For a large spillage, consult the Department of Environment or the relevant authorities.
Methods and materials for containment and cleaning up	Ventilate well the area. Stop leak, if it's possible to do so without risk. Move containers from spill area. Absorb with inert material (soil, sand, vermiculite) and place in an appropriate waste disposal clearly identified. Finish cleaning by rinsing with soapy water the contaminated surface. Dispose via a licensed waste disposal contractor.

7. Handling and storage

Precautions for safe handling	Use only in well ventilated area. Avoid all contact with skin, eyes and clothing. Do not breathe vapors and mists. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet. Keep containers tightly closed when not used. Do not eat, do not drink and do not smoke during use.

	Wash hands, forearms and face thoroughly after handling this compound. Remove contaminated clothing and wash before reuse.
Conditions for safe storage, including any incompatibilities	Store tightly closed and in properly labelled container in a dry, cool and well ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep away from direct sunlight and heat. Store away from incompatible materials (see section 10). Keep off freezing.
Storage temperature	10 to 40°C (50 to 104°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	No IDLH value is reported. Sodium metaborate tetrahydrate Ingestion 2330 mg/kg Rat LD50
Appropriate engineering controls	There is no control parameter set for the ingredients of this product. Ensure adequate ventilation, especially in confined areas.
Individual protection measures	
Eye	If risk of contact with eyes wear chemical splash goggles. Depending on conditions of use, a face shield may be necessary.
Hands	Wear nitrile or neoprene gloves. Disposable nitrile gloves can also be used, but discard after single use. Before using, user should confirm impermeability. Discard gloves that show tears, pinholes, or signs of wear. Gloves must only be worn on clean hands. Wash gloves with water before removing them. After using gloves, hands should be washed and dried thoroughly.
Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer code. Wear an apron, if necessary, to prevent repeated or prolonged contact with skin. To clean up a spill, if necessary, wear a synthetic polyethylene coveralls such as the Tychem (DuPont) or equivalent coveralls manufactured to provide protection against liquid chemical.
Respiratory	Respiratory protection equipment (PPE) must be selected, fitted, maintained and inspected in accordance with regulations and CSA Standard Z 94.4 and approved by NIOSH / MSHA. In case of insufficient ventilation or in confined or enclosed space and for an assigned protection factor (APF) up to 10 times the exposure limit: wear a half mask respirator with appropriate cartridges fitted with P100 filters. For an APF until maximum 100 times of exposure limit, wear a full face respirator mask with appropriate cartridges and P100 filters.
Feet	Wear rubber boots to clean up a spill.


Goggles


Nitrile gloves

9. Physical and chemical properties

Physical state	Liquid	**Flammability**	Non-flammable.
Colour	brown	**Flammability limits**	N/Ap.
Odour	Odourless	**Flash point**	N/Ap.
Odour threshold	N/Av.	**Auto-ignition temperature**	N/Ap.
pH	10 to 13	**Sensibility to electrostatic charges**	No

Melting point	N/Ap.	**Sensibility aux sparks and/or friction**	No
Freezing point	5°C (41°F)	**Vapour density**	N/Av. (Air = 1)
Boiling point	<110°C (230°F)	**Relative density**	1.15 kg/L (Water = 1)
Solubility	Soluble in water.	**Partition coefficient n-octanol/water**	N/Av.
Evaporation rate	= Water	**Decomposition temperature**	N/Av.
Vapour pressure	N/Av.	**Viscosity**	N/Av.
Percent Volatile	85%	**Molecular mass**	N/Ap.
N/Av.: Not Available N/Ap.: Not Applicable Und.: Undetermined N/E: Not Established			

10. Stability and reactivity

Reactivity	No information available for this product.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions (including polymerizations)	Hazardous polymerization will not occur.
Conditions to avoid	Avoid contact with incompatible materials. Keep off freezing.
Incompatible materials	Strong oxidizing agents (such as nitric acid, perchloric acid, peroxides, chlorates and perchlorates), strong acids.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Numerical measures of toxicity	Sodium metaborate tetrahydrate	Ingestion 2330 mg/kg Rat LD50
	Sodium tolyltriazole	Ingestion 920 mg/kg Rat LD50
		Skin >2000 mg/kg Rabbit LD50
	Soium Lignosulfonate	Ingestion >7000 mg/kg Rat LD50
Likely routes of exposure	Skin, eyes, inhalation, ingestion.	
Delayed, immediate and chronic effects	**Eye contact**	May cause redness and slight irritation of the eyes.
	Skin contact	May cause redness and slight irritation of the skin. Contact with skin may aggravate an existing skin condition.
	Inhalation	Overexposure may cause slight respiratory tract irritation.
	Ingestion	Swallowing will causes digestive tract disturbances resulting in nausea, vomiting, cramps and diarrhea.
	Respiratory	Inhalation of vapors or mists can cause severe irritation to nose, throat and respiratory tract.
	IRAC/NTP Classification	No ingredients listed.
	Carcinogenicity	Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.

	Mutagenicity	Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effect.
	Reproductive	Ingredients in this product are not known to cause effects on reproduction.
	Specific target organ toxicity - single exposure	No target organ is listed.
	Specific target organ toxicity - repeated exposure	No target organ is listed.
Interactive effects	No information available for this product.	
Other information	The oral and skin acute toxicity estimates (ATE) of the mixture were calculated to be greater than 2000 mg/kg. The acute toxicity estimate (ATE) by inhalation of the mixture was calculated to be greater than 20 mg/L/4h. These values are not classified according to WHMIS 2015 and OSHA HCS 2012.	

12. Ecological information

Ecological toxicity	Fish - Rainbow trout - Salmo gairdneri Green Algea - Selenastrum capricornutum Fish Common dab	LC50 25 mg/L; 96h (Sodium tolyltriazole) EC50 26.2 mg/L; 96h (Sodium tolyltriazole) LC50 74 mg/L; 96h (Sodium tetraborate)
Persistence	No persistent in environment.	
Degradability	No information available for this product. In surface waters, sulfite is oxidized to sulfate either catalytically by air oxygen or by microbial action. Simple inorganic salts are not susceptible to photodegradation.	
Bioaccumulative potential	No information available for this product. Log Kow value of -4 (Sodium sulfite). The inorganic salts of this kind are not expected to accumulate in biota.	
Mobility in soil	No information available for this product. The product is soluble in water, there should have little partition into the atmosphere, soil and sediments.	
Other adverse effects	This chemical does not deplete the ozone layer.	

13. Disposal considerations

Container 	Important! Prevent waste generation. Use in full. DO NOT throw residual to sewer, streams, sewers or drinking water supply. Dispose via a licensed waste disposal contractor. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.

14. Transport information

UN Number	N/A
UN Proper Shipping Name	Not regulated by TDG (Canada) and 49 CFR DOT (USA).
Environmental hazards	This material is not listed as a marine pollutant.
Special precautions for user	No information available for this product.

TDG - Transportation of Dangerous Goods (Canada)	
Transport hazard class(es)	Not regulated
Packing group	Not regulated
Emergency response guidebook 2012	
IMO/IMDG - International Maritime Transport	
Classification	Not regulated
IATA - International Air Transport Association	
Classification	Not regulated

These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it.

15. Regulatory information

Other regulations

UNITED STATE OF AMERICA:
- Toxic Substance Control Act (TSCA) :
All ingredients are listed in the TSCA Inventory or otherwise comply with TSCA requirements.
- EPCRA Section 313 Toxic Chemicals:
No material is listed.
- CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):
No material is listed.
- EPCRA Section 302/304 Extremely Hazardous Substances:
No material is listed.
- Clean Air Act (CAA 112b) HAP - Hazardous Air Pollutants:
No material is listed.
- Clean Air Act (CAA 112b) HON - Hazardous Organic National Emission Air Pollutants:
No material is listed.
- Clean Water Act (CWA) 311 Hazardous Substances:
No material is listed.
- California Proposition 65:
No material is listed.
CANADA :
- Canada DSL and NDSL:
All ingredients are listed in the Domestic Substances List (DSL) or on the Non-Domestic Substances List (NDSL).
- Canadian National Pollutant Release Inventory Substances (NPRI):
No material is listed.

WHMIS 1988

Non-WHMIS controlled

HMIS

NFPA

16. Other information

Date (YYYY-MM-DD)	AQUARIAN CHEMICALS INC. 2015-09-27
Version	01
Other information	REFERENCES: - Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, http://hazmap.nlm.nih.gov/index.php - Service du répertoire toxicologique de la Commission de la santé et de la sécurité du travail (CSST), http://www.reptox.csst.qc.ca - TOXNET Databases, Toxicology Data Network, NIH U.S. National Library of Medicine, http://toxnet.nlm.nih.gov/ - OECD Existing Chemicals Database, Chemicals Screening Information DataSet (SIDS) for High Volume Chemicals, UNEP publications, http://webnet.oecd.org/HPV/UI/Search.aspx - Database, Institut National de Recherche et de Sécurité, http://www.inrs.fr/accueil/produits/bdd.html - NIOSH Pocket Guide to Chemical Hazards, Centers for Disease Control and Prevention, NIOSH Publications, 2007, http://www.cdc.gov/niosh/npg/npg.html ACGIH: American Conference of Governmental Industrial Hygienists AIHA: American Industrial Hygiene Association HMIS: Hazardous Materials Identification System NFPA: National Fire Protection Association OSHA: Occupational Safety and Health Administration (USA) NIOSH: National Institute for Occupational Safety and Health NTP: National Toxicology Program RSST: Règlement sur la santé et la sécurité du travail (Québec) GHS: Globally Harmonized System IARC: International Agency for Research on Cancer IDLH: Immediately Dangerous to Life or Health STEL: Short Term Exposure Limit (15 min) TWA: Time Weighted Averages WHMIS: Workplace Hazardous Materials Information System