SAFETY DATA SHEET



HPH Powder (SS)

Section 1. Identification

Product name	: HPH Powder (SS)
Other means of identification	: Note: Canada Trade Secret Decision Granted Date: October 29, 2011.
Product type	: Solid.
Relevant identified uses of t	the substance or mixture and uses advised against
Supplier's details	: DuBois Chemicals,Inc. 3630 E. Kemper Road Cincinnati, Ohio 45241 Phone: 1-800-438-2647
Emergency telephone number (24hr)	: 1-866-923-4919 (US and Canada) 01-651-523-0314 (Int'I and Mexico)
e-mail address of person responsible for this SDS	: cs@duboischemicals.com

Section 2. Hazards identification

This material is hazardous according to criteria of EPA New Zealand.

EPA Group Standard:	HSR002526 - Cleaning Products (Corrosive) Group Standard
HSNO Classification	 6.1 - ACUTE TOXICITY: ORAL - Category D 8.2 - CORROSIVE TO DERMAL TISSUE - Category B 8.3 - CORROSIVE TO OCULAR TISSUE - CategoryA 6.9 - SPECIFIC TARGET ORGAN TOXICITY (SINGLE OR REPEATED EXPOSURE): INHALATION

This material is classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001 and has been classified according to the Hazardous Substances (Classifications) Regulations 2001.

This material is not classified as a dangerous good according to criteria in New Zealand Standard 5433:2007 Transport of Dangerous Goods on Land.

GHS label elemen	<u>ts</u>	
Signal word	: Danger	
Hazard statemen	ts : Harmful if swallowed. Causes severe skin burns and eye damage.	
Precautionary st	atements May cause respiratory irritation.	
Prevention	: Wear protective gloves: > 8 hours (breakthrough time): Chemical-resistant gloves.	
	Wear eye or face protection: Recommended: splash goggles. Wear protective clothing. Do not breathe dust. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area.	
Response	: Immediately call a POISON CENTER or doctor/physician. IF SWALLOWED: Rinse	
	mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.	
Storage	: Store locked up. Store container tightly closed in well-ventilated place.	
Disposal	: Dispose of contents and container in accordance with all local, regional, national and	
	international regulations.	
Version : 1	Date of issue/Date of revision : 16/11/2020	



Section 2. Hazards identification

Symbol



Other hazards which do not : None known. result in classification

Section 3. Composition/information on ingredients

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Substance/mixture	: Mixture		
Other means of identification	: Note: Canada Trade Secret	t Decision Granted Date: Octo	ber 29, 2011.
CAS number/other identifi	iers		
CAS number	: Notapplicable.		
EC number	: Mixture.		
Product code	: BLE00001		
Ingredient name		%	CAS number
pentasodium triphosphate		40 - 50	7758-29-4
disodium metasilicate		20 - 30	6834-92-0
sodium carbonate		10 - 20	497-19-8
Sodium Hydroxide		5 - 10	1310-73-2
sodium sulphate		5 - 10	7757-82-6
tetrasodium pyrophosphate	9	1 - 5	7722-88-5

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.

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

Section 4. First aid measures

Description of necess	ary first aid measures
Inhalation	: Get medical attention immediately. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion	: Get medical attention immediately. Wash out mouth with water. Remove dentures if any. 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. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	: Get medical attention immediately. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Version : 1	Date of issue/Date of revision : 16/11/2020

Powered by

Section 4. First aid measures

Eye contact	: Get medical attention immediately. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
Most important symptoms/	effects. acute and delayed
Potential acute health effe	<u>cts</u>
Inhalation	: May cause damage to organs following a single exposure if inhaled. May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.
Ingestion	: Harmful if swallowed. May cause burns to mouth, throat and stomach.
Skin contact	: Causes severe burns.
Eye contact	: Causes serious eyedamage.
Over-exposure signs/sym	<u>ptoms</u>
Inhalation	: No specific data.
Ingestion	: Adverse symptoms may include the following: stomach pains
Skin	: Adverse symptoms may include the following: pain or irritation redness blistering may occur
Eyes	: Adverse symptoms may include the following: pain watering redness
Indication of immediate me	dical attention and special treatment needed. if necessary
Specific treatments	: Notavailable.
Notes to physician	: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media	
Suitable	: Use an extinguishing agent suitable for the surrounding fire.
Not suitable	: None known.
Specific hazards arising from the chemical	: No specific fire or explosion hazard.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides phosphorus oxides metal oxide/oxides
Hazchem code	: Notavailable.
Special precautions 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.

Version	: 1	Date of issue/Date of revision : 16/11/2020



Section 5. Fire-fighting measures

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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. Accider	ital release measures
Personal precautions, protective equipment and emergency procedures	: 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 and materials for co	ontainment and cleaning up
Small spill	: Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container.
Large spill	: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, 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. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container.

Section 7. Handling and storage

Precautions for safe handling	: Put on appropriate personal protective equipment (see Section 8). 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. Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
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
Sodium Hydroxide	NZ OSH (New Zealand, 2/2013). WES-Ceiling: 2 mg/m ³
tetrasodium pyrophosphate	NZ OSH (New Zealand, 2/2013). WES-TWA: 5 mg/m ³ 8 hours.

Version : 1

Date of issue/Date of revision : 16/11/2020



Section 8. Exposure controls/personal protection

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Appropriate engineering controls	If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
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.
Individual protection measu	<u>ires</u>
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.
Respiratory protection	: Use a properly fitted, particulate filter 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.
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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): Chemical-resistant gloves
Eye 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: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Recommended: splash goggles
Skin 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.

Section 9. Physical and chemical properties

<u>Appearance</u>		
Physical state	: Solid. [Powder.]	
Color	: White.	
Odor	: Faint odor. Alkaline.	
Odor threshold	: Not available.	
рН	: Not applicable.	
Melting point	: Not available.	
Boiling point	: Notavailable.	
Flash point	: Closed cup: Notapplicable.	
Burning rate	: Notavailable.	
Burning time	: Not available.	
Evaporation rate	: Not available.	
Flammability (solid, gas)	: Notavailable.	
Lower and upper explosive (flammable) limits	: Not available.	
Vapor pressure	: Not available.	
Vapor density	: Not available.	
Version : 1		Date of issue/Date of revision : 16/11/2020



Section 9. Physical and chemical properties

Relative density	:1
Solubility	: Easily soluble in the following materials: cold water and hot water.
Solubility in water	: Notavailable.
Partition coefficient: n- octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
SADT	: Not available.
Viscosity	: Not available.
Aerosol product	
Type of aerosol	: Notapplicable.
Heat of combustion	: Notavailable.
Ignition distance	: Notapplicable.
Enclosed space ignition - Time equivalent	: Not applicable.
Enclosed space ignition - Deflagration density	: Not applicable.
Flame height	: Not applicable.
Flame duration	: Not applicable.

Section 10. Stability and reactivity

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

Section 11. Toxicological information

Information on the like	ely routes of exposure
Inhalation	: May cause damage to organs following a single exposure if inhaled. May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.
Ingestion	: Harmful if swallowed. May cause burns to mouth, throat and stomach.
Skin contact	: Causes severe burns.
Eye contact	: Causes serious eyedamage.
Symptoms related to t	the physical, chemical and toxicological characteristics
Inhalation	: No specific data.
Ingestion	: Adverse symptoms may include the following: stomach pains
Skin contact	: Adverse symptoms may include the following: pain or irritation redness blistering may occur
Eye contact	: Adverse symptoms may include the following: pain watering redness

Date of issue/Date of revision : 16/11/2020



Section 11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
pentasodium triphosphate	LD50 Oral	Rat	3120 mg/kg	-
disodium metasilicate	LD50 Oral	Rat	1153 mg/kg	-
sodium carbonate	LD50 Oral	Rat	4090 mg/kg	-
sodium sulphate	LD50 Oral	Rat	5989 mg/kg	-
tetrasodium pyrophosphate	LD50 Oral	Rat	4 g/kg	-
	LD50 Oral	Rat	31770 mg/kg	-
HPH Powder (SS)	LD50 Oral	Rat	5989 mg/kg	-

Irritation/Corrosion

Not available.

Sensitization

Not available.

Potential chronic health effects

General	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Eye contact	: 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.
Chronic toxicity	
Not available.	
Carcinogenicity	
Not available.	
-	

Mutagenicity

Not available.

Teratogenicity

Not available.

Reproductive toxicity

Not available.

Specific target organ toxicity

Not available.

Aspiration hazard

Not available.

Numerical measures of toxicity

Acute toxicity estimates Not available.



Section 12. Ecological information

Ecotoxicity

: No known significant effects or critical hazards.

Product/ingredient name	Result	Species	Exposure
pentasodium triphosphate	Acute EC50 276.61 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
disodium metasilicate	Acute EC50 33.53 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 2320 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
sodium carbonate	Acute EC50 242000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute LC50 176000 µg/l Fresh water	Crustaceans - Amphipoda	48 hours
	Acute LC50 265000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 300000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
sodium sulphate	Acute EC50 1900000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 1430 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute IC50 332 mg/l Fresh water	Aquatic plants - Lemna aequinoctialis	96 hours
	Acute LC50 2220 µg/l Marine water	Crustaceans - Americamysis bahia	48 hours
	Acute LC50 1194 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 56000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic EC10 700 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Chronic NOEC 205 mg/l Fresh water	Fish - Oncorhynchus mykiss - Egg	31 days
tetrasodium pyrophosphate	Acute LC50 391000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1380 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours

Persistence/degradability

Conclusion/Summary

: The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
sodium carbonate	-	-	Readily

Bioaccumulative potential

Not available.

Mobility in soil

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

: 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 nonrecyclable 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

Version : 1

Date of issue/Date of revision : 16/11/2020



containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
New Zealand Class	1824	SODIUM HYDROXIDE SOLUTION	8	11		Hazchem Code: 2X Emergency Response Guide No: 37
ADG Class	1824	SODIUM HYDROXIDE SOLUTION	8	11	CORROSIVE 8	-
UN Class	1824	SODIUM HYDROXIDE SOLUTION	8	II	CORROSIVE 8	-
ADR/RID Class	1824	SODIUM HYDROXIDE SOLUTION	8	II	CORROSIVE 8	Tunnel code (E)
IATA Class	1824	SODIUM HYDROXIDE SOLUTION	8	11	CORROSIVE 8	-
IMDG Class	3262	Corrosive solid, basic, inorganic, n.o.s. (sodium hydroxide, sodium metasilicate)	8	11	CORROSIVE 8	-

PG* : Packing group

Section 15. Regulatory information		
New Zealand Inventory of Chemicals (NZIoC)	: All components are listed or exempted.	
HSNO Approval Number	: Not available.	
HSNO Group Standard	: HSR002526 - Cleaning Products (Corrosive) Group Standard	
HSNO Classification	: 6.1 - ACUTE TOXICITY: ORAL - Category D 8.2 - CORROSIVE TO DERMAL TISSUE - Category B 8.3 - CORROSIVE TO OCULAR TISSUE - CategoryA 6.9 - SPECIFIC TARGET ORGAN TOXICITY (SINGLE OR REPEATED EXPOSURE): INHALATION	
Australia inventory (AICS)	: All components are listed or exempted.	
Safety, health and environmental regulations specific for the products	: No known specific national and/or regional regulations applicable to this product (including its ingredients).	



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Section 16. Other information

Key to abbreviations	 ADG = Australian Dangerous Goods ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Internediate 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) RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail UN = United Nations
References	: Not available.

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 abovenamed 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.

