SAFETY DATA SHEET

Issue Date 11-May-2016 **Revision Date** 16-Jan-2018 **Version** 2.2

Section 1: Identification: Product identifier and chemical identity

Product identifier
Product Name Chloride 2 Indicator Powder Pillows
Product Code(s) 105766

Other means of identification
Safety data sheet number M00022

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory reagent. Determination of chloride.

Uses advised against No information available

Details of manufacturer or importer

Manufacturer
Hach Company P.O. Box 389 Loveland, CO 80539 USA +1(970) 669-3050

Supplier
HACH Pacific 26 Brindley StreetDandenong South, 3175 AU Tel: 1300 887 735

Emergency telephone number
13 11 26

Section 2: Hazard(s) identification

GHS Classification

Acute toxicity - Oral	Category 4 - (H302)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2A - (H319)
Respiratory sensitization	
Skin sensitization	Category 1 - (H317)
Mutagenicity	Category 1B - (H340)
Carcinogenicity	Category 1A - (H350)
Reproductive toxicity	
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Chronic aquatic toxicity	Category 1 - (H410)

Label elements

Exclamation mark
Health hazard
Environment

Signal word - Danger

Hazard statements
H302 - Harmful if swallowed
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H340 - May cause genetic defects
H350 - May cause cancer
H410 - Very toxic to aquatic life with long lasting effects

EU Specific Hazard Statements
Not applicable

Precautionary statements
P362 - Take off contaminated clothing and wash before reuse
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention
P272 - Contaminated work clothing should not be allowed out of the workplace
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P363 - Wash contaminated clothing before reuse
P201 - Obtain special instructions before use
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P271 - Use only outdoors or in a well-ventilated area
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P312 - Call a POISON CENTER or doctor if you feel unwell
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P273 - Avoid release to the environment
P391 - Collect spillage
P270 - Do not eat, drink or smoke when using this product
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P330 - Rinse mouth
P501 - Dispose of contents/ container to an approved waste disposal plant

Other hazards
No information available

Section 3: Composition and information on ingredients, in accordance with Schedule 8

Chemical Family Mixture

Substance

Not applicable

Mixture

Chemical name	Formula	CAS No.	EC No.	Percent Range

Sodium bicarbonate	$NaHCO_3$	144-55-8	205-633-8	50 - 60%
Chromic acid (H2CrO4), dipotassium salt	K_2CrO_4	7789-00-6	232-140-5	50 - 60%

Section 4: FIRST AID MEASURES

Emergency telephone number
Poisons Information Center, Australia: 13 11 26
Poisons Information Center, New Zealand: 0800 764 766

Description of necessary first aid measures

General advice Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

Inhalation Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur.

Skin contact May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician. Wash off immediately with soap and plenty of water for at least 15 minutes.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.

Ingestion Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

For emergency responders

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Most important symptoms/effects, acute and delayed

Symptoms Itching. Rashes. Hives. Burning sensation.

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

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

Section 5: Firefighting measures

Suitable Extinguishing Media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media No information available

Specific hazards arising from the chemical

Specific hazards arising from the chemical Product is or contains a sensitizer. May cause sensitization by skin contact.

Flammable properties
During a fire, this product decomposes to form toxic gases. Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

Explosive properties
Not classified according to GHS criteria.

Hazardous combustion products This material will not burn.

Specific/special fire-fighting measures

Specific/special fire-fighting measures No information available.

Special protective equipment and precautions for fire-fighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Other Information Use personal protective equipment as required. Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Dam up. Pick up and transfer to properly labeled containers. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. Take precautionary measures against static discharges.

Precautions to prevent secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations. See section 8 for more information. See section 13 for more information.

Section 7: Handling and storage, including how the chemical may be safely used

Preventive measures for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid breathing vapors or mists.

Precautions for safe handling

General Hygiene Considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

Section 8: Exposure controls and personal protection

Control parameters

Exposure Limits .

Chemical name	Australia
Chromic acid (H2CrO4), dipotassium salt (50 - 60%) CAS#: 7789-00-6	TWA: 0.05 mg/m^3

Legend See section 16 for terms and abbreviations

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hand Protection Wear suitable gloves. Impervious gloves.

Eye/face protection Wear safety glasses with side shields (or goggles). If splashes are likely to occur, wear safety glasses with side-shields.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing.

General Hygiene Considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.

Thermal hazards None under normal processing.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Solid
Appearance powder **Color** yellow
Odor Odorless **Odor threshold** No data available

Property	Values	Remarks • Method
Molecular weight	No data available	
pH	8.2	5% Solution
Melting point/freezing point	No data available	
Boiling point / boiling range	No data available	

Evaporation rate	Not applicable
Vapor pressure	Not applicable
Vapor density (air = 1)	Not applicable
Specific gravity (water = 1 / air = 1)	2.25
Partition Coefficient (n-octanol/water)	log K_{ow} ~ 0
Soil Organic Carbon-Water Partition Coefficient	log K_{oc} ~ 0
Autoignition temperature	No data available
Decomposition temperature	100 °C / 212 °F
Dynamic viscosity	Not applicable
Kinematic viscosity	Not applicable

Solubility(ies)

Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Soluble	> 1000 mg/L	25 °C / 77 °F

Solubility in other solvents

Chemical Name	Solubility classification	Solubility	Solubility Temperature
Acid	Soluble	> 1000 mg/L	25 °C / 77 °F

Other Information

Metal Corrosivity

Steel Corrosion Rate	Not applicable
Aluminum Corrosion Rate	Not applicable

Volatile Organic Compounds (VOC) Content
Not applicable

Chemical name	CAS No.	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Sodium bicarbonate	144-55-8	No data available	-
Chromic acid (H2CrO4), dipotassium salt	7789-00-6	No data available	-

Explosive properties

Upper explosion limit	No data available
Lower explosion limit	No data available

Flammable properties

Flash point	Not applicable
Method	No information available

Flammability Limit in Air

Upper flammability limit:	No data available
Lower flammability limit:	No data available

Oxidizing properties No data available.

Bulk density No data available

Particle Size No information available

Particle Size Distribution No information available

Section 10: STABILITY AND REACTIVITY

Reactivity
Not applicable.

Chemical stability
Stability Stable under normal conditions.

Explosion data
Sensitivity to Mechanical Impact None
Sensitivity to Static Discharge None.

Possibility of Hazardous Reactions
Possibility of Hazardous Reactions None under normal processing.

Hazardous polymerization
None under normal processing.

Conditions to avoid
Conditions to avoid None known based on information supplied.

Incompatible materials
Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

Hazardous Decomposition Products
Carbon monoxide. Carbon dioxide. chromium. chromium trioxide.

Section 11: TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure
Product Information

Inhalation May cause irritation of respiratory tract.

Eye contact Causes serious eye irritation.

Skin contact May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Causes skin irritation.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed.

Symptoms Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes.

Aggravated Medical Conditions Skin disorders. Eye disorders. Respiratory disorders. Allergies. Preexisting eye disorders. Blood disorders. Kidney disorders. Liver disorders. lungs.

Toxicologically synergistic products None known.

Toxicokinetics, metabolism and distribution No information available.

Chemical name	Toxicokinetics, metabolism and distribution

Chemical name	Toxicokinetics, metabolism and distribution
Sodium bicarbonate (50 - 60%) CAS#: 144-55-8	The major extracellular buffer in the blood and the interstitial fluid of vertebrates is the bicarbonate buffer system.

Product Acute Toxicity Data Test data reported below

Oral Exposure Route

Endpoint type	Toxicological effects	Key literature references and sources for data
Rat LD_{50}	**Behavioral** Flaccid muscle tone Lethargy Loss of righting reflex Prostration **Endocrine** Abnormalities of the spleen **Eye** Ptosis **Gastrointestinal** Abnormalities of the gastrointestinal tract Mucoid diarrhea **Liver** Abnormalities of the liver **Lungs, Thorax, or Respiration** Abnormalities of the lungs Dyspnea Red or brown staining of the nose/mouth area Tachypnea **Nutritional and Gross Metabolic** Wetness of the anogenital area **Reproductive Skin and Appendages** Piloerection Wetness of the nose/mouth	Outside testing

Dermal Exposure Route No data available
Inhalation (Dust/Mist) Exposure Route No data available
Inhalation (Vapor) Exposure Route No data available
Inhalation (Gas) Exposure Route No data available

Unknown Acute Toxicity
0 % of the mixture consists of ingredient(s) of unknown toxicity.

Acute Toxicity Estimations (ATE)

ATEmix (oral)	No information available
ATEmix (dermal)	No information available
ATEmix (inhalation-dust/mist)	No information available

ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

Ingredient Acute Toxicity Data

Oral Exposure Route If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sodium bicarbonate (50 - 60%) CAS#: 144-55-8	Rat LD_{50}	4220 mg/kg	None reported	None reported	Vendor SDS
Chromic acid (H2CrO4), dipotassium salt (50 - 60%) CAS#: 7789-00-6	Mouse LD_{50}	180 mg/kg	None reported	None reported	RTECS (Registry of Toxic Effects of Chemical Substances)

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sodium bicarbonate (50 - 60%) CAS#: 144-55-8	Mouse LD_{50}	3360 mg/kg	None reported	None reported	RTECS (Registry of Toxic Effects of Chemical Substances)

Dermal Exposure Route If available, see data below

Inhalation (Dust/Mist) Exposure Route If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sodium bicarbonate (50 - 60%) CAS#: 144-55-8	Rat LC_{50}	> 4.47 mg/L	4 hours	None reported	OECD (Organization for Economic Co-operation and Development)

Inhalation (Vapor) Exposure Route If available, see data below

Inhalation (Gas) Exposure Route If available, see data below

Product Specific Target Organ Toxicity Single Exposure Data

Oral Exposure Route

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Ingredient Specific Target Organ Toxicity Single Exposure Data

Oral Exposure Route If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sodium bicarbonate (50 - 60%) CAS#: 144-55-8	Infant TD_{Lo}	1260 mg/kg	None reported	**Kidney, Ureter, or Bladder** Urine volume increased **Lungs, Thorax, or Respiration** Other changes	RTECS (Registry of Toxic Effects of Chemical Substances)

Dermal Exposure Route If available, see data below

Inhalation (Dust/Mist) Exposure Route If available, see data below

Inhalation (Vapor) Exposure Route If available, see data below

Inhalation (Gas) Exposure Route If available, see data below

Aspiration toxicity

If available, see data below

Kinematic viscosity Not applicable

Product Skin Corrosion/Irritation Data

No data available.

Ingredient Skin Corrosion/Irritation Data

If available, see data below

Chemical name	Test method	Species	Reported	Exposure	Results	Key literature

			dose	time		references and sources for data
Sodium bicarbonate (50 - 60%) CAS#: 144-55-8	Standard Draize Test	Human	30 mg	3 days	Mild skin irritant	RTECS (Registry of Toxic Effects of Chemical Substances)
Chromic acid (H2CrO4), dipotassium salt (50 - 60%) CAS#: 7789-00-6	None reported	None reported	None reported	None reported	Skin irritant	No information available

Product Serious Eye Damage/Eye Irritation Data
No data available.

Ingredient Eye Damage/Eye Irritation Data
If available, see data below

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sodium bicarbonate (50 - 60%) CAS#: 144-55-8	Standard Draize Test	Rabbit	100 mg	0.5 minutes	Mild eye irritant	RTECS (Registry of Toxic Effects of Chemical Substances)
Chromic acid (H2CrO4), dipotassium salt (50 - 60%) CAS#: 7789-00-6	None reported	None reported	None reported	None reported	Eye irritant	No information available

Sensitization Information

Product Sensitization Data
Skin Sensitization Exposure Route No data available.
Respiratory Sensitization Exposure Route No data available.

Ingredient Sensitization Data
Skin Sensitization Exposure Route If available, see data below.

Chemical name	Test method	Species	Results	Key literature references and sources for data
Sodium bicarbonate (50 - 60%) CAS#: 144-55-8	Based on human experience	Human	Not confirmed to be a skin sensitizer	No information available

Respiratory Sensitization Exposure Route If available, see data below.

Chemical name	Test method	Species	Results	Key literature references and sources for data
Sodium bicarbonate (50 - 60%) CAS#: 144-55-8	Based on human experience	Human	Not confirmed to be a respiratory sensitizer	No information available

Chronic Toxicity Information

Product Specific Target Organ Toxicity Repeat Dose Data
Oral Exposure Route No data available.
Dermal Exposure Route No data available.
Inhalation (Dust/Mist) Exposure Route No data available.
Inhalation (Vapor) Exposure Route No data available.
Inhalation (Gas) Exposure Route No data available.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data
Oral Exposure Route If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sodium bicarbonate	Man	20 mg/kg	5 days	**Gastrointestinal**	RTECS (Registry of Toxic

(50 - 60%) CAS#: 144-55-8	TD_{Lo}			Nausea or vomiting **Nutritional and Gross** **Metabolic** Metabolic acidosis	Effects of Chemical Substances)

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Chromic acid (H2CrO4), dipotassium salt (50 - 60%) CAS#: 7789-00-6	Rat	209 mg/kg	2 weeks	**Liver** Other changes **Kidney, Ureter, or Bladder** **Biochemical**	RTECS (Registry of Toxic Effects of Chemical Substances)

Dermal Exposure Route If available, see data below
Inhalation (Dust/Mist) Exposure Route If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sodium bicarbonate (50 - 60%) CAS#: 144-55-8	Rat TC_{Lo}	77.2 mg/L	119 days	**Blood** Changes in serum composition (e.g. TP, bilirubin, cholesterol) **Cardiac** Other changes **Nutritional and Gross** **Metabolic** Changes in sodium	RTECS (Registry of Toxic Effects of Chemical Substances)

Inhalation (Vapor) Exposure Route If available, see data below
Inhalation (Gas) Exposure Route If available, see data below

Product Carcinogenicity Data

Oral Exposure Route No data available
Dermal Exposure Route No data available
Inhalation (Dust/Mist) Exposure Route No data available
Inhalation (Vapor) Exposure Route No data available
Inhalation (Gas) Exposure Route No data available

Ingredient Carcinogenicity Data

Chemical name	CAS No.	ACGIH	IARC	NTP	OSHA
Sodium bicarbonate	144-55-8	-	-	-	-
Chromic acid (H2CrO4), dipotassium salt	7789-00-6	A1	Group 1	Known	X

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	A1 - Known Human Carcinogen
IARC (International Agency for Research on Cancer)	Group 1 - Carcinogenic to Humans
NTP (National Toxicology Program)	Known - Known Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)	X - Present

Oral Exposure Route If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Chromic acid (H2CrO4), dipotassium salt (50 - 60%) CAS#: 7789-00-6	Mouse	1600 mg/kg	62 weeks	**Blood** Leukemia **Lungs, Thorax, or** **Respiration**	RTECS (Registry of Toxic Effects of Chemical Substances)

Dermal Exposure Route If available, see data below
Inhalation (Dust/Mist) Exposure Route If available, see data below
Inhalation (Vapor) Exposure Route If available, see data below
Inhalation (Gas) Exposure Route If available, see data below

Product Germ Cell Mutagenicity *invitro* **Data**
No data available.

Ingredient Germ Cell Mutagenicity *invitro* **Data**

If available, see data below

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Chromic acid (H2CrO4), dipotassium salt (50 - 60%) CAS#: 7789-00-6	Sister chromatid exchange	Human fibroblast	100 nmol/L	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical name	**Test**	**Cell Strain**	**Reported dose**	**Exposure time**	**Results**	**Key literature references and sources for data**
Chromic acid (H2CrO4), dipotassium salt (50 - 60%) CAS#: 7789-00-6	Unscheduled DNA synthesis	Human fibroblast	0.1 mmol/L	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)

Product Germ Cell Mutagenicity *invivo* **Data**

Oral Exposure Route	No data available
Dermal Exposure Route	No data available
Inhalation (Dust/Mist) Exposure Route	No data available
Inhalation (Vapor) Exposure Route	No data available
Inhalation (Gas) Exposure Route	No data available

Ingredient Germ Cell Mutagenicity *invivo* **Data**

Oral Exposure Route If available, see data below

Chemical name	Test	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sodium bicarbonate (50 - 60%) CAS#: 144-55-8	Unscheduled DNA synthesis	Rat	50400 mg/kg	4 weeks	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)

Dermal Exposure Route	If available, see data below
Inhalation (Dust/Mist) Exposure Route	If available, see data below
Inhalation (Vapor) Exposure Route	If available, see data below
Inhalation (Gas) Exposure Route	If available, see data below

Product Reproductive Toxicity Data

Oral Exposure Route	No data available
Dermal Exposure Route	No data available
Inhalation (Dust/Mist) Exposure Route	No data available
Inhalation (Vapor) Exposure Route	No data available
Inhalation (Gas) Exposure Route	No data available

Ingredient Reproductive Toxicity Data

Oral Exposure Route	If available, see data below
Inhalation (Dust/Mist) Exposure Route	If available, see data below
Inhalation (Vapor) Exposure Route	If available, see data below
Inhalation (Gas) Exposure Route	If available, see data below

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity Very toxic to aquatic life with long lasting effects

Unknown Aquatic Toxicity 0 % of the mixture consists of components(s) of unknown hazards to the aquatic environment.

Product Ecological Data

Aquatic toxicity

Fish No data available
Crustacea No data available
Algae No data available

Ingredient Ecological Data

Aquatic toxicity

Fish If available, see ingredient data below

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Sodium bicarbonate (50 - 60%) CAS#: 144-55-8	96 hours	*Lepomis macrochirus*	LC_{50}	7100 mg/L	PEEN (Pan European Ecological Network)
Chromic acid (H2CrO4), dipotassium salt (50 - 60%) CAS#: 7789-00-6	96 hours	*Pimephales promelas*	LC_{50}	40 mg/L	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)

Crustacea If available, see ingredient data below

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Sodium bicarbonate (50 - 60%) CAS#: 144-55-8	48 Hours	*Daphnia magna*	EC_{50}	4100 mg/L	PEEN (Pan European Ecological Network)
Chromic acid (H2CrO4), dipotassium salt (50 - 60%) CAS#: 7789-00-6	48 Hours	*Daphnia magna*	EC_{50}	15 mg/L	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)

Algae If available, see ingredient data below

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Chromic acid (H2CrO4), dipotassium salt (50 - 60%) CAS#: 7789-00-6	72 Hours	*Nitzschia sp.*	EC_{50}	0.26 mg/L	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)

Other Information

Persistence and degradability

Product Biodegradability Data
No data available.

Ingredient Biodegradability Data

Chemical name	Test method	Biodegradation	Exposure time	Results
Sodium bicarbonate (50 - 60%) CAS#: 144-55-8	None reported	None reported	None reported	Readily biodegradable

Bioaccumulation

Product Bioaccumulation Data

No data available.

Partition Coefficient (n-octanol/water) log K_{ow} ~ 0

Ingredient Bioaccumulation Data

Chemical name	Test method	Exposure time	Species	Bioconcentration factor (BCF)	Results
Sodium bicarbonate (50 - 60%) CAS#: 144-55-8	None reported	None reported	None reported	None reported	Does not have the potential to bioaccumulate

Mobility

Soil Organic Carbon-Water Partition Coefficient log K_{oc} ~ 0

Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Soluble	> 1000 mg/L	25 °C / 77 °F

Other adverse effects
Contains a substance with an endocrine-disrupting potential. Environmental exposure.

Section 13: DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

Section 14: TRANSPORT INFORMATION

ADG
UN Number UN3288
Proper shipping name Toxic solid, inorganic, n.o.s.
Hazard Class 6.1
Packing Group III
Special Provisions 223, 274
Description UN3288, Toxic solid, inorganic, n.o.s. (Chromic acid (H2CrO4), dipotassium salt), 6.1, III

IATA
UN/ID no UN3288
Proper shipping name Toxic solid, inorganic, n.o.s.
Hazard Class 6.1
Packing Group III
ERG Code 6L
Special precautions for user A3,A5
Description UN3288, Toxic solid, inorganic, n.o.s. (Chromic acid (H2CrO4), dipotassium salt), 6.1, III

IMDG
UN/ID no UN3288
Proper shipping name Toxic solid, inorganic, n.o.s.
Hazard Class 6.1
Packing Group III
EmS-No F-A, S-A

Special precautions for user	223, 274
Marine pollutant	This material meets the definition of a marine pollutant
Description	UN3288, Toxic solid, inorganic, n.o.s. (Chromic acid (H2CrO4), dipotassium salt), 6.1, III, Marine Pollutant

Additional information
There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies.
If the item is part of a reagent set or kit the classification would change to the following:
UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.
If the item is not regulated, the Chemical Kit classification does not apply.

Section 15: REGULATORY INFORMATION

Regulatory information

National regulations

Australia
Model Work Health and Safety Regulations
[NOHSC:2011(2003] National Code of Practice for the Preparation of Material Safety Data Sheets
Labelling of Workplace Hazardous Chemicals Code of Practice
See section 8 for national exposure control parameters

Poison Schedule Number 6

National pollutant inventory
Subject to reporting requirement

Chemical name	National pollutant inventory
Chromic acid (H2CrO4), dipotassium salt - 7789-00-6	10 tonne/yr Threshold category 1 2000 tonne/yr Threshold category 2b 60000 MWH Threshold category 2b 20 MW Threshold category 2b

Banned and/or restricted
This product contains one or more substance(s) subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV). Verify that requirements related to using, handling, and storing substances subject to prohibition, authorization or restriction are met.

Chemical name	Carcinogen	Restricted substance
Chromic acid (H2CrO4), dipotassium salt - 7789-00-6	-	For abrasive blasting at a concentration of >0.5% as Chromium except as specified for wet blasting

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
TCSI	Complies
AICS	Complies
NZIoC	Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
TCSI - Taiwan Chemical Substances Inventory
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

International Regulations

Ozone-depleting substances (ODS) Not applicable

Persistent Organic Pollutants Not applicable

Export Notification requirements Not applicable

Section 16: Any other relevant information

Key or legend to abbreviations and acronyms used in the safety data sheet

NIOSH IDLH	*Immediately Dangerous to Life or Health*
ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)
NDF	*no data*

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Ceiling Limit Value	MAC	Maximum Allowable Concentration
X	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.
SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

Prepared By Hach Product Compliance Department

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Revision Note
16
(M)SDS sections updated

Reference Sources for Section 11
See Section 11: TOXICOLOGICAL INFORMATION

Disclaimer
USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

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End of Safety Data Sheet