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Disclaimer:

CHESSER CHEMICALS Pty Ltd provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

Product: SPARKLE C.I.P.

HAZARDOUS according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals

SIGNAL WORD: DANGER



Emergency Response No: 1800 951 288

RECOMMENDED PPE



Health hazards

H314

Causes severe skin burns and eye damage

**1 IDENTIFICATION****IDENTIFICATION**

Product Code: SPK
 Product Name: SPARKLE C.I.P.
 Other Names: None available
 Product Use: C.I.P Alkaline cleaner
 Restrictions on use: Use according to Directions; avoid contact with acids. Mixing with water will produce heat. Use appropriate PPE.

COMPANY DETAILS

Company: CHESSER CHEMICALS Pty Ltd
 ABN Number: 67 008 262 039
 Address: 124 Days Road
 FERRYDEN PARK SA 5010
 Telephone Number: (08) 8406 0000
 Facsimile Number: (08) 8406 0099
 Emergency Telephone Number: CHEMWATCH 1800 951 288

Other Information: This information summarises our best knowledge on the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

2 HAZARD IDENTIFICATION

HAZARDOUS according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals

Classification of the substance or mixture:

Corrosive to Metals - Category 1
 Skin Corrosion/Irritation - Category 1A
 Eye Damage/Irritation - Category 1

SIGNALWORD:**DANGER**

Corrosion

Hazard Statements**Physical hazards**

H290 May be corrosive to metals

Health hazards

H314 Causes severe skin burns and eye damage

Environmental hazards

H402 Harmful to aquatic life

Other Hazards

Not Listed

Precautionary statements**General precautionary statements**

P102 Keep out of reach of children

Prevention precautionary statements

P234 Keep only in original container.

P260 Do not breathe dust.

P264 Wash hands thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Response precautionary statements**

P301-P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361-P353	IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.
P304+P340	IF INHALED: Remove victim to fresh air and keep comfortable for breathing.
P310	Immediately call a POISON CENTRE or doctor/physician
P321	Specific treatment (see First Aid Measures on Safety Data Sheet).
P363	Wash contaminated clothing before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P390	Absorb spillage to prevent material damage

Storage precautionary statements

P405	Store locked up
P406	Store in corrosive resistant containers with a resistant inner lining

Disposal precautionary statements

P501	Dispose of contents/container to Comply with applicable regulations.
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Poisons Schedule (SUSMP): S6 Poison

3 COMPOSITION**Ingredients**

Chemical Entity	CAS Number	Proportion	Risk Phrases
SODIUM HYDROXIDE	[1310-73-2]	>60%	H290 H314 H318
DISODIUM TRIOXOSILICATE	[10213-79-3]	5 – 10%	H290 H314 H335

4 FIRST AID MEASURES**Description of necessary measures according to routes of exposure**

Swallowed	Do NOT induce vomiting. If person is conscious give water to drink immediately to dilute the caustic soda. Seek urgent medical attention.
Inhaled	Seek urgent medical help. Remove victim from exposure to fresh air. Provide emergency airway support. Give 100% humidified supplemental oxygen with artificial respiration. If needed transport to emergency medical facility without delay.
Eye	Immediately flush eyes with copious amounts of water for at least 30 minutes while holding eyelids open. Take care not to rinse contaminated water into the non-affected eye. Washing must be started within 10 seconds of contact and continued for 30 minutes to prevent permanent injury. Seek immediate medical attention. An Ophthalmology consultation is a must.
Skin	Remove contaminated clothing. Immediately flush the contaminated skin thoroughly with water for at least 15 minutes. Seek urgent medical attention.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of patient.
Medical Conditions Aggravated by Exposure	Persons with lung diseases may be at an increased risk due to the toxic effects of this chemical on these organs.

5 FIRE FIGHTING MEASURES

General Measures	Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk.
Flammability Conditions	Product is not combustible.
Extinguishing Media	In case of fire, use appropriate extinguishing media most suitable for surrounding fire conditions. Use carbon dioxide or suitable dry chemical extinguisher. Do NOT use water.
Fire and Explosion Hazard	Direct contact with water can produce a violent exothermic reaction.
Hazardous Products of Combustion	Reacts with aluminium, tin, zinc and their alloys, copper, lead, etc. giving off hydrogen.
Special Fire Fighting Instructions	HAZCHEM: 2X



Personal Protective Equipment	Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment. Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves) or chemical splash suit. Please note: Structural fire fighters protective clothing is recommended for fire situations only, it is not effective in spills.
Flash Point	No Data Available
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	No Data Available
Hazchem Code	2X

6 ACCIDENTAL RELEASE MEASURES

General Response Procedure	Allow only trained personnel wearing appropriate protective equipment to be involved in spill response. Avoid accidents, clean up immediately. Increase ventilation. Avoid walking through spilled product as it is slippery when spilt. Isolate the danger area. Use clean, non-sparking tools and equipment. Shut off all possible sources of ignition.
Clean Up Procedures	Mechanically collect as much of the spill as possible. Absorb with sand, earth or clay. Transfer to suitable, labelled, corrosion-resistant containers and dispose of promptly as hazardous waste. Spill on areas other than pavement, dirt or sand may be handled by removing the affected soils and placing into approved containers.
Containment Decontamination	Stop leak if safe to do so. Dike spills immediately. Dilute acid (preferably acetic acid may be used to neutralise residual traces of caustic soda) after flushing.
Environmental Precautionary Measures	Do not allow product to reach drains, sewers or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Authority.
Evacuation Criteria	Evacuate all unnecessary personnel.
Personal Precautionary Measures	Personnel involved in the clean up should wear full protective clothing as listed in section 8.

7 HANDLING AND STORAGE

Handling	Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product vapours. Avoid prolonged or repeated exposure. Do not smoke, eat or drink when handling product. Product can react violently with water and acids. Caustic solution generates heat when further diluted with water. Concentrations greater than 40%, the heat generated can raise temperatures above the boiling point resulting in sporadic, violent eruptions or spattering. Emergency showers and eye-washes must be available. When used in its various applications, the product must be prevented from coming into uncontrolled direct contact with other products such as acids and metals. Never neutralise the solid product.
Storage	Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Store away from aluminium, tin, zinc and alloys (bronzes), chrome and lead. Protect from damp and kept apart from acids, halogenated hydrocarbons, nitroparaffins, etc. The floor must be waterproof and anti-slip. A water supply or source must be provided in the place of storage. Emergency showers and eye-washes must be available. Special conditions: Prevent the product from becoming damp or aerated. Hygroscopic product. Becomes carbonated in contact with the air or moisture.
Container	Store in original packaging as approved by manufacturer. Recommended materials for warehouse storage and containers: Carbon steel, carbon steel drums, polythene sacks or Big-Bags.

8 EXPOSURE CONTROL / PERSONAL PROTECTION

General	LA-EC:	2 mg/m ³ (INSHT).
	TLV-STEL:	2 mg/m ³ (ACGIH).
	WEL-Limit value - Short term:	2 mg/m ³ (UK)



Human exposure:

Workers:

DNEL (local effects): 1 mg/m³ (inhalation; long-term toxicity)

General population:

DNEL (local effects): 1 mg/m³ (inhalation; long-term toxicity)

OSHA PEL

8 hour TWA 2mg/m³

ACGIH TLV

- Ceiling 2mg/m³**Exposure Limits**

No Data Available

Biological Limits

No information available on biological limit values for this product.

Engineering Measures

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Adequate ventilation should be provided so that exposure limits are not exceeded.

Personal Protection Equipment**RESPIRATOR:**

In the case of powder emissions, use mask with dust filter (P2 or P3) (AS1715/1716).

EYES:

Use safety goggles, splash proof and / or appropriate full face shield (AS1336/1337).

HANDS:

Gloves for chemical hazards (AS2161).

CLOTHING:

Suit or plastic apron and safety footwear providing protection against acids (AS3765/2210).

Work Hygienic Practices

An eyewash fountain should be within the immediate work area for emergency use. Do not smoke, eat or drink when handling product.

9 PHYSICAL AND CHEMICAL PROPERTIES**Physical State**

Solid (powder)

Appearance

Blend of powders and micropearls

Odour

Odourless

Colour

White, Translucent

pH (1% solution)

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Vapour Pressure

0 mmHg (20°C) (@ 20 °C)

Relative Vapour Density

No Data Available

Boiling/Melting Point

1388 °C @101 325 Pa °C

Solubility

100g / 100g

Freezing Point

No Data Available

Specific Gravity

2.13 Water = 1

Flash Point

No Data Available

Auto Ignition Temp

No Data Available

Evaporation Rate

No Data Available

Bulk Density

No Data Available

Corrosion Rate

No Data Available

Decomposition Temperature

No Data Available

Density2.13 g/cm³ Relative**Specific Heat**

No Data Available

Molecular Weight

No Data Available

Net Propellant Weight

No Data Available

Octanol Water Coefficient

Not Applicable

Particle Size

No Data Available

Partition Coefficient

No Data Available

Saturated Vapour Concentration

No Data Available

Vapour Temperature

No Data Available

Viscosity

No Data Available

Volatile Percent

No Data Available

VOC Volume

No Data Available

Additional Characteristics**Flammability**

(solid, gas): Inorganic oxides in which the inorganic element is in its highest possible oxidation state are incapable of further reaction with oxygen and can thus be designated as non-flammable.

Self-heating:

The preliminary results exclude self-heating of the substance up to 400°C.



Potential for Dust Explosion	No Data Available
Fast or Intensely Burning Characteristics	Highly exothermal reaction with strong acids.
Reacts dangerously with	acetic acid, allyl chloride, chlorine trifluoride, chloroform, methylic alcohol, chloronitrotoluene, chlorosulphonic acid, glyoxal, cyanohydrin, hydrochloric acid, hydrofluoric acid, hydroquinone, nitric acid, sulphuric acid and oleum, nitropropane, phosphorous, propiolactone, phosphorous pentoxide, tetrachlorobenzene, tetrahydrofuran, etc.
Caustic soda forms salts with	nitromethane and nitroparaffins that explode on impact.
Flame Propagation or Burning Rate of Solid Materials	No Data Available
Non-Flammables That Could Contribute Unusual Hazards to a Fire	Heat is generated when mixed with water. Spattering and boiling can occur. Caustic soda solution reacts readily with various reducing sugars (ie: fructose, galactose, maltose, dry whey solids) to produce carbon monoxide.
Properties That May Initiate or Contribute to Fire Intensity	Caustic soda forms salts with nitromethane and nitroparaffins that explode on impact.
Reactions That Release Gases or Vapours	Reacts with aluminium, tin, zinc and their alloys, copper, lead, etc. giving off hydrogen.
Release of Invisible Flammable Vapours and Gases	No Data Available

10 STABILITY AND REACTIVITY

General Information	Corrosive Solid.
Chemical Stability	The substance is stable under normal environmental conditions and foreseeable conditions of temperature and pressure during the storage and handling.
Conditions to Avoid	Do not expose to the elements for excessive periods, to prevent degradation of the container.
Materials to Avoid	Highly exothermal reaction with strong acids. Aluminium, tin, zinc and their alloys, copper, lead, etc. Acetic acid, allyl chloride, chlorine trifluoride, chloroform, methylic alcohol, chloronitrotoluene, chlorosulphonic acid, glyoxal, cyanohydrin, hydrochloric acid, hydrofluoric acid, hydroquinone, nitric acid, sulphuric acid and oleum, nitropropane, phosphorous, propiolactone, phosphorous pentoxide, tetrachlorobenzene, tetrahydrofuran, nitromethane and nitroparaffins. Caustic soda forms salts with nitromethane and nitroparaffins that explode on impact. Caustic soda solution reacts readily with various reducing sugars (ie: fructose, galactose, maltose, dry whey solids) to produce carbon monoxide.
Hazardous Decomposition Products	Reacts with aluminium, tin, zinc and their alloys, copper, lead, etc. giving off hydrogen. When the product decomposes, toxic sodium oxide gases are given off.
Hazardous Polymerisation	No Data Available

11 TOXICOLOGICAL INFORMATION

General Information	<p>Animal Toxicity:</p> <table> <tr> <td>Oral LDLO Rabbit:</td> <td>500 mg/kg</td> </tr> <tr> <td>Skin, Rabbit, Adult,</td> <td>500 mg/24h Severe irritation</td> </tr> <tr> <td>Eye, Rabbit, Adult</td> <td>50 mg/24h Severe irritation</td> </tr> <tr> <td>Intra peritoneal, Mouse, LD50</td> <td>40 mg/kg</td> </tr> </table> <p>Specific target organ toxicity repeated exposure: Corrosive substance. In addition, the substance is not expected to be systemically available in the body under normal handling and use conditions and therefore systemic effects of the substance after repeated exposure are not expected to occur.</p> <p>CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction): Carcinogenicity: The substance did not induce mutagenicity in in vitro and in vivo studies (EU RAR, 2007). Systemic carcinogenicity is not expected to occur because the substance is not expected to be systemically available in the body under normal handling and use conditions.</p> <p>Germ cell mutagenicity: Both the in vitro and the in vivo genetic toxicity tests indicated no evidence of mutagenic activity. Furthermore the substance is not expected to be systemically available in the body under normal handling and use conditions and for this reason additional testing is considered unnecessary (EU RAR, 2007).</p>	Oral LDLO Rabbit:	500 mg/kg	Skin, Rabbit, Adult,	500 mg/24h Severe irritation	Eye, Rabbit, Adult	50 mg/24h Severe irritation	Intra peritoneal, Mouse, LD50	40 mg/kg
Oral LDLO Rabbit:	500 mg/kg								
Skin, Rabbit, Adult,	500 mg/24h Severe irritation								
Eye, Rabbit, Adult	50 mg/24h Severe irritation								
Intra peritoneal, Mouse, LD50	40 mg/kg								



Eye Contact	Reproductive toxicity: The substance is not expected to be systemically available in the body under normal handling and use conditions and for this reason it can be stated that the substance will not reach the foetus nor reach male and female reproductive organs.
Ingestion	Reproductive toxicity, effects on or via lactation: The substance is not expected to be systemically available in the body under normal handling and use conditions and for this reason additional testing is considered unnecessary. Causes severe burns. Can cause ulceration of the conjunctiva and cornea.
Inhalation	Causes severe burns. Burns to the mouth, oesophagus, can cause intestinal perforation.
Skin Contact	Causes severe burns. Irritation of the respiratory system.
Carcinogen Category	Causes severe burns. Intense burning and ulcers penetrating the skin. 0

12 ECOLOGICAL INFORMATION

Ecotoxicity The hazard of the substance for the environment is caused by the hydroxyl ion (pH effect). For this reason the effect of the substance on the organisms depends on the buffer capacity of the aquatic or terrestrial ecosystem. The high water solubility and low vapour pressure indicate that the substance will be found predominantly in water. Also the variation in acute toxicity for aquatic organisms can be explained for a significant extent by the variation in buffer capacity of the test medium. LC50 values ranged between 33 and 189 mg/l.

Acute toxicity to fish

LC50 (lethal concentration, 50%): All available tests resulted in a range of toxicity values between 35 to 189 mg/l. However, in the majority of these test reports there were no data on pH variation.

Chronic toxicity to fish

NOEC (no observed effect concentration): It is not required to conduct this study since the substance dissociates in water and the only possible effect would result from the pH effect. However, pH will remain within environmentally expected ranges.

Acute toxicity to crustaceans

EC50 (effect concentration, 50%): Species: Ceriodaphnia. 40.4 mg/l (48 h; based on immobility). (Warne et al. 1999)

Chronic toxicity to crustaceans

NOEC (no observed effect concentration): it is not required to conduct this study since the substance dissociates in water and the only possible effect would result from the pH effect. However, pH will remain within environmentally expected ranges.

Toxicity data on soil micro- and macro-organisms and other environmentally relevant organisms, such as birds, bees and plants: If emitted to soil, sorption to soil particles will be negligible. Depending on the buffer capacity of the soil, OH⁻ will be neutralised in the soil pore water or the pH may increase. There is no direct exposure of soil to NaOH based on the available uses. In addition, no indirect exposure via air is expected as it rapidly neutralizes in air.

Persistence/Degradability	Readily biodegradable. Other relevant information Abiotic degradation: NaOH is a strong alkaline substance that dissociates completely in water to Na ⁺ and OH ⁻ . High water solubility and low vapour pressure indicate that NaOH will be found predominantly in aquatic environment. This implies that it will not adsorb on particulate matter or surfaces. Atmospheric emissions as aerosols are rapidly neutralized by carbon dioxide and the salts will be washed out by rain.
Mobility	High water solubility and mobility.
Environmental Fate	Caustic soda may react violently with acids and water. Do not allow drainage into sewers, streams or storm conduits.
Bioaccumulation Potential	Bioconcentration factor (BCF): experimental data: Considering its high water solubility, NaOH is not expected to bioconcentrate in organisms. In addition, sodium is a naturally-occurring element that is prevalent in the environment and to which organisms are exposed regularly, for which they have some capacity to regulate the concentration in the organism. Partition coefficient: n-octanol/water (log Pow): Not applicable (inorganic substance).
Environmental Impact	No Data Available

**13 DISPOSAL CONSIDERATIONS**

General Information	Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.
Special Precautions for Land Fill	Contact a specialist disposal company or the local waste regulator for advice. The product can be neutralised using highly diluted hydrochloric acid, which should be added very slowly by specialised personnel wearing proper protection. NEVER NEUTRALISE THE SOLID PRODUCT.

14 TRANSPORT INFORMATION**Road and Rail Transport**

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

UN No:	1759
Transport Hazard Class:	8 Corrosive
Packing Group:	III
Proper Shipping Name:	CORROSIVE SOLID N.O.S. (contains Sodium Hydroxide)
Hazchem or Emergency Action Code:	2X

**Marine Transport**

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

UN No:	1759
Transport Hazard Class:	8 Corrosive
Packing Group:	III
Proper Shipping Name or Technical Name:	CORROSIVE SOLID N.O.S. (contains Sodium Hydroxide)
IMDG EMS Fire:	F-G
IMDG EMS Spill:	S-B

Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

UN No:	1759
Transport Hazard Class:	8 Corrosive
Packing Group:	III
Proper Shipping Name or Technical Name:	CORROSIVE SOLID N.O.S. (contains Sodium Hydroxide)

15 REGULATORY INFORMATION

Poisons Schedule	S6
EPG	8A1
AICS Name	All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

16 OTHER INFORMATION

Literature References	No data available.
Sources for Data	No data available.

Legend to Abbreviations and Acronyms

<	less than	g/cm³	grams per cubic centimetre
>	greater than	g/l	grams per litre
AICS	Australian Inventory of Chemical Substances	HSNO	Hazardous Substance and New Organism
CAS	Chemical Abstracts Service (Registry Number)	IDLH	Immediately Dangerous to Life and Health
cm²	square centimetres	Immiscible	liquids are insoluble in each other
CO₂	Carbon Dioxide	Kg	kilogram
COD	Chemical Oxygen Demand	kg/m³	kilograms per cubic metre
deg C (°C)	degrees Celsius	LC50	LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test
ERMA	Environmental Risk Management Authority		
G	gram		



CHESSER CHEMICALS

SAFETY DATA SHEET

Page 9 of 9
Product: **SPARKLE C.I.P.**
Issued: July 2021

LD50 animals. The material is inhaled over a set period of time, usually 1 or 4

LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals

Ltr Litre
m³ cubic metre
mbar millibar
mg milligram
mg/24H milligrams per 24 hours
mg/kg milligrams per kilogram
mg/m³ milligrams per cubic metre
Misc miscible
Miscible liquids form one homogeneous liquid phase regardless of the amount of either component present

mm millimetre
mPa.s milli Pascal per second

N/A Not Applicable
NOHSC National Occupational Health and Safety Commission
OECD Organization for Economic Co-operation and Development
PEL Permissible Exposure Limit
ppb parts per billion
ppm parts per million
ppm/2h parts per million per 2 hours
ppm/6h parts per million per 6 hours
RCP Reciprocal Calculation Procedure
STEL Short Term Exposure Limit
TLV Threshold Limit Value
tne tonne
TWA Time Weighted Average
ug/24H micrograms per 24 hours
UN United Nations (number)
Wt weight

Date Prepared: Monday 26th July 2021 Version: 1.1 Supersedes: July 2015

Reason for re-issue: 5 year revision. Reviewed hazard and precautionary statements.



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