Material Safety Data Sheet: ND-66

Issuing Date February2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name ND-66
Recommended use Water treatment chemical
Information on Manufacturer
CHEMSEARCH DIV. OF NCH CORP.

5-9,Ralph Street,Alexandria,NSW-2015
PH(02)96690260,FAX(02)96931562

Product Code 4416
Chemical nature mixture
Emergency Telephone Number0401718972

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER
POISON
Water reactive substance. Reacts with water to release flammable gas. May cause fire
Oxidizing agent
Corrosive
Causes skin and eye burns
Harmful if inhaled and may cause delayed lung injury
Harmful or fatal if swallowed

Colour Blue **Physical State** Solid **Odour** Odourless

Potential Health Effects

Principle Route of Exposure	Eye contact, Skin contact, Inhalation.
Primary Routes of Entry	Inhalation
Acute Effects	
Eyes	Corrosive to the eyes and may cause severe damage including blindness.
Skin	Causes skin burns.
Inhalation	Harmful by inhalation. Causes burns.
Ingestion	Harmful or fatal if swallowed. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach. Components of the product create formation of methemoglobin.
Chronic Toxicity	Harmful if inhaled and may cause delayed lung injury.
Target Organ Effects	Central nervous system, Respiratory system, Liver, Kidney, Blood, Heart, Skin, Eyes.
Aggravated Medical Conditions	Neurological disorders, Liver disorders, Kidney disorders, Blood disorders, Respiratory disorders, Heart disease, Skin disorders.
Potential Environmental Effects	See Section 12 for additional Ecological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No
Sodium hydroxide	1310-73-2
Sodium nitrate	7631-99-4
Aluminum	7429-90-5
Petroleum distillates, hydrotreated light	64742-47-8
Sodium carbonate	497-19-8
Sodium chloride	7647-14-5

4. FIRST AID MEASURES

General advice	Do not get in eyes, on skin or on clothing. Do not breathe dust.
Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately.
Skin Contact	Wipe up with absorbent material (e.g. cloth, fleece). Remove immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately.
Inhalation	Move to fresh air. In case of shortness of breath, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
Ingestion	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.
Notes to physician	The product causes burns of eyes, skin and mucous membranes. Control of circulatory system, shock therapy if needed.

5. FIRE-FIGHTING MEASURES

Flash Point Does not flash **Method** Not applicable
Autoignition Temperature No information available.
Flammability Limits in Air % Hydrogen, by reaction with metals. **Upper** 75 **Lower** 4
Suitable Extinguishing Media
Dry chemical.Carbon dioxide (CO2). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Specific hazards arising from the chemical
Contact with metals liberates flammable hydrogen gas. Water reactive.
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, NOHSC (approved or equivalent) and full protective gear
NFPA **Health** 3 **Flammability** 1 **Instability** 1 **Other** Water Reactive
HMIS **Health** 3 **Flammability** 1 **Instability** 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Prevent further leakage or spillage if safe to do so.
Environmental Precautions No special environmental precautions required.
Methods for Containment Cover powder spill with plastic sheet or tarp to minimize spreading
Methods for Cleaning Up Pick up and arrange disposal without creating dust.
Neutralizing Agent Acetic acid, diluted. Corrosive hazard. Wear protective gloves/clothing and eye/face protection.

7. HANDLING AND STORAGE

Handling Do not get in eyes, on skin or on clothing. Do not breathe vapors/dust.
Storage Store in original container. Metal containers must be lined. Keep containers tightly closed in a dry, cool and well-ventilated place.
Storage Temperature **Minimum** 2 °C **Maximum** 49 °C
Storage Conditions **Indoor** X **Outdoor** **Heated** **Refrigerated**

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Sodium hydroxide	Ceiling: 2 mg/m^3	TWA: 2 mg/m^3	IDLH: 10 mg/m^3 Ceiling: 2 mg/m^3
Sodium nitrate	No data available	No data available	No data available
Aluminum	TWA: 1 mg/m^3	TWA: 15 mg/m^3 TWA: 5 mg/m^3	TWA: 10 mg/m^3 TWA: 5 mg/m^3
Petroleum distillates, hydrotreated light	5 mg/m^3 as oil mist	10 mg/m^3 as oil mist	No data available
Sodium carbonate	No data available	No data available	No data available
Sodium chloride	No data available	5 mg/m^3 PNOR (as solid)	No data available

Engineering Measures Ensure adequate ventilation, especially in confined areas. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.
Personal Protective Equipment
Eye/Face Protection Tightly fitting safety goggles. Face-shield.
Skin Protection Wear suitable protective clothing, Impervious gloves.
Respiratory Protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
General Hygiene Considerations Wear protective gloves/clothing. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid	**Viscosity**	Granular
Colour	Blue	**Odour**	Odourless
Appearance	Opaque	**pH**	(10 % solution) 14
Specific Gravity	1.18	**Bulk Density (lb/cu ft)**	81.4
Evaporation Rate	0	**Percent Volatile (Volume)**	4.1
VOC Content (%)	1.5	**VOC Content (g/L)**	18
Vapor Pressure	<0.01 mmHg @ 21°C	**Vapor Density**	6.6
Solubility	Partly soluble	**Boiling Point/Range**	Not applicable

10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal conditions. Hazardous polymerization does not occur.

Conditions to Avoid Keep away from open flames, hot surfaces, and sources of ignition, Protect from moisture.

Incompatible Products Strong oxidizing agents, Reducing agents, Contact with metals liberates hydrogen gas, Water.

Hazardous Decomposition Products Carbon oxides, Nitrogen oxides (NOx), Sodium oxides.

Possibility of Hazardous Reactions Water reactive, Oxidizing properties.

11. TOXICOLOGICAL INFORMATION

Product Information No information available.

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Sodium hydroxide	no data available	= 1350 mg/kg (Rabbit)	no data available	no data available	no data available
Sodium nitrate	= 1267 mg/kg (Rat)	no data available	no data available	no data available	no data available
Aluminum	no data available	no data available	no data available	no data available	no data available
Petroleum distillates, hydrotreated light	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h	no data available	no data available
Sodium carbonate	= 4090 mg/kg (Rat)	no data available	no data available	no data available	no data available
Sodium chloride	= 3 g/kg (Rat)	> 10 g/kg (Rabbit)	> 42 g/m^3 (Rat) 1 h	no data available	no data available

Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Sodium hydroxide	no data available	no data available	no data available	no data available	eyes, respiratory system, skin
Sodium nitrate	no data available	no data available	no data available	no data available	Blood, CNS, heart, liver, kidneys
Aluminum	no data available	no data available	no data available	no data available	eyes,respiratory system,skin
Petroleum distillates, hydrotreated light	no data available	no data available	no data available	no data available	respiratory system, liver, kidney, CNS
Sodium carbonate	no data available	no data available	no data available	no data available	no data available
Sodium chloride	no data available	no data available	no data available	no data available	kidney

Carcinogenicity There are no known carcinogenic chemicals in this product.

Component	ACGIH	IARC	NTP	OSHA	Other
Sodium hydroxide	not applicable	not applicable	not applicable	not applicable	not applicable
Sodium nitrate	not applicable	not applicable	not applicable	not applicable	not applicable
Aluminum	not applicable	not applicable	not applicable	not applicable	not applicable
Petroleum distillates, hydrotreated light	not applicable	not applicable	not applicable	not applicable	not applicable
Sodium carbonate	not applicable	not applicable	not applicable	not applicable	not applicable
Sodium chloride	not applicable	not applicable	not applicable	not applicable	not applicable

12. ECOLOGICAL INFORMATION

Product Information No information available.

Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
Sodium hydroxide	no data available	LC50 = 45.4 mg/L Oncorhynchus mykiss 96 h	no data available	no data available	N/A
Sodium nitrate	no data available	LC50 = 2000 mg/L Lepomis macrochirus 96 h LC50 994.4 - 1107 mg/L Oncorhynchusmykiss 96 h	no data available	no data available	-3.8
Aluminum	no data available	no data available	no data available	no data available	N/A

Petroleum distillates, hydrotreated light	no data available	LC50 = 45 mg/L Pimephalespromelas 96 h LC50 = 2.2 mg/L Lepomis macrochirus 96 h LC50 = 2.4 mg/L Oncorhynchus mykiss 96 h	no data available	LC50= 4720 mg/L 96 h	N/A
Sodium carbonate	EC50 = 242 mg/L Nitzschia 120 h	LC50 = 300 mg/L Lepomis macrochirus 96 h LC50 310 - 1220 mg/L Pimephales promelas 96 h	no data available	EC50= 265 mg/L 48 h	N/A
Sodium chloride	no data available	LC50 5560 - 6080 mg/L Lepomis	no data available	EC50= 1000 mg/L 48 h	N/A

		macrochirus 96 h LC50 = 12946 mg/L Lepomis macrochirus 96 h LC50 6020 - 7070 mg/L Pimephales promelas 96 h LC50 = 7050 mg/L Pimephales promelas 96 h LC50 6420 - 6700 mg/L Pimephales promelas 96 h LC50 4747 - 7824 mg/L Oncorhynchusmykiss 96 h		EC50 340.7 - 469.2 mg/L 48 h	

Persistence and Degradability No information available.
Bioaccumulation No information available.
Mobility No information available.

13. DISPOSAL CONSIDERATIONS

Product Disposal Dispose of in accordance with local regulations.
Container Disposal Empty containers should be taken for local recycling, recovery, or waste disposal. Do not re-use empty containers.

14. TRANSPORT INFORMATION

ADG

Proper Shipping Name SODIUM HYDROXIDE, SOLID, MIXTURE
Hazard Class& Code 8 , 2X
UN-No UN1823
Packing Group II
Description UN1823, SODIUM HYDROXIDE, SOLID, MIXTURE, 8, P.G. II

15. REGULATORY INFORMATION

Poison Schedule Schedule 6

16. OTHER INFORMATION

Prepared By Technical Service Chemist
Supercedes Date 06/05/2013
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Reason for Revision No information available.
Glossary No information available.
List of References. No information available.

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