

Material Safety Data Sheet: ND-66

Issuing Date February 2016

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name ND-66
Recommended use Water treatment chemical
Information on Manufacturer
NCH AUSTRALIA PTY LTD ,
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 Number 0401718972

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				
Sodium nitrate	not applicable				
Aluminum	not applicable				
Petroleum distillates, hydrotreated light	not applicable				
Sodium carbonate	not applicable				
Sodium chloride	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 Oncorhynchus mykiss 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	
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Persistence and Degradability
Bioaccumulation
Mobility

No information available.
No information available.
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
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16. OTHER INFORMATION

Prepared By	Technical Service Chemist
Supersedes Date	06/05/2013
Issuing Date	February 2016
Reason for Revision	No information available.
Glossary	No information available.
List of References.	No information available.

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