Issue Date 12-Jul-2012 Revision Date 28-May-2015 Version 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Code 18340 Product Name NB-100

Other means of identification

Recommended use of the chemical and restrictions on use

Use only for the purpose on the product label.

Details of the supplier of the safety data sheet

Manufacturer / Manufactured For

Ross Chemical Systems, Inc. PO Box 523 Altoona, IA 50009 Phone: (515) 244-1788

Emergency telephone number

24 Hour Emergency Phone Number 1-800-535-5053

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Oral	Category 5
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Chronic aquatic toxicity	Category 3

Label elements

Emergency Overview

Danger

Hazard statements

May be harmful if swallowed Causes severe skin burns and eye damage Harmful to aquatic life with long lasting effects



Appearance Clear, Yellow

Physical state Liquid

Odor Mild

Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

Precautionary Statements - Response

Specific Treatment (See Section 4 on the SDS).

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing. Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If irritation persists, call a physician.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Drink plenty of water. See a physician immediately.

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed. Keep out of reach of children.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)

Other Information

Unknown Acute Toxicity

4.36% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
Sodium Dodecylbenzene Sulfonate	25155-30-0	7-13	*
Sodium Xylene Sulfonate	1300-72-7	1-5	*
Nonylphenol Polyethylene Glycol Ether	127087-87-0	1-5	*

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call

a physician.

Eye contact Immediate medical attention is required. Rinse immediately with plenty of water, also under

the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected

area.

Inhalation If mists are formed, leave area and do not return until mists have dissipated. If irritation

persists, call a physician.

Ingestion Rinse mouth. Do NOT induce vomiting. Drink plenty of water. Immediate medical attention

is required.

Self-protection of the first aiderUse personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms The product causes irritation of eyes, skin and mucous membranes.

Indication of any immediate medical attention and special treatment needed

Note to physicians Product is a corrosive material. Use of gastric lavage or emesis is contraindicated.

Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. Treat

symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

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

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.

Explosion data

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

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. Avoid

contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions Do not allow into any sewer, on the ground or into any body of water. Should not be

released into the environment. Prevent further leakage or spillage if safe to do so. Prevent

product from entering drains.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Dilute material with dilute acetic acid (vinegar) to a pH of less than 10.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Ensure adequate ventilation, especially in confined areas. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed

systems.

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. Keep in properly labeled containers.

Incompatible materials Strong acids and oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational

exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls Showers, Eyewash stations & Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles. Face protection shield.

Skin and body protection Wear chemical resistant gloves.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

respiratory protection should be worn. Positive-pressure supplied air respirators or air purifying respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene When using do not eat, drink or smoke. Avoid contact with skin, eyes or clothing. Wear

suitable gloves and eye/face protection. Take off all contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid Appearance Clear, Yellow

Odor Mild

Odor threshold No Information available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

pH 13.0 - 13.5 **Specific Gravity** 1.083

Viscosity
No Information available
Melting point/freezing point
No Information available

Boiling point / boiling range 212 ° F Flash point N/A

Evaporation rate < 1 (butyl acetate = 1)

Flammability (solid, gas) No Information available

Upper flammability limit:N/ALower flammability limit:N/AVapor pressureN/DVapor densityN/DWater solubilityN/D

Partition Coefficient No Information available

(n-octanol/water)

Autoignition temperatureNo Information availableDecomposition temperatureNo Information available

Other Information

Density Lbs/Gal No Information available

VOC Content (%) 0.05

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Exposure to air or moisture over prolonged periods.

Incompatible materials

Strong acids and oxidizing agents.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product InformationThe primary effects and toxicity of this material are due to it corrosive nature.

Inhalation Causes burns.

Eye contact Corrosive to the eyes and may cause severe damage including blindness.

Skin Contact The product causes burns of eyes, skin and mucous membranes.

Ingestion Causes burns. May be harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg(Rat)	-	-
Sodium Dodecylbenzene Sulfonate 25155-30-0	= 500 mg/kg (Rat) = 438 mg/kg (Rat)	-	-
Sodium Xylene Sulfonate 1300-72-7	= 1000 mg/kg (Rat)	-	-
Nonylphenol Polyethylene Glycol Ether 127087-87-0	= 1310 mg/kg(Rat)	-	-
Tall Oil Fatty Acid 61790-12-3	= 7600 mg/kg (Rat)	-	-
Sodium Silicate 1344-09-8	= 1960 mg/kg (Rat)	> 4640 mg/kg (Rabbit)	-
Sodium Sulfate 7757-82-6	> 10000 mg/kg (Rat)	-	<u>-</u>

Information on toxicological effects

Symptoms No Information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Corrosivity Causes burns. Extremely corrosive and destructive to tissue. Risk of serious damage to

eyes.

Sensitization No Information available.

Germ cell mutagenicity No Information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity
STOT - single exposure
STOT - repeated exposure
No Information available.
No Information available.
No Information available.

Chronic toxicity Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw

necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Avoid repeated exposure.

Possible risk of irreversible effects.

Aspiration hazard No Information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 4.36% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document

12. ECOLOGICAL INFORMATION

Ecotoxicity

9.99% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Sodium Dodecylbenzene Sulfonate 25155-30-0	-	10.8: 96 h Oncorhynchus mykiss mg/L LC50 static	-
Tall Oil Fatty Acid 61790-12-3	1000: 72 h Pseudokirchneriella subcapitata mg/L EC50	-	-
Sodium Silicate 1344-09-8	-	3185: 96 h Brachydanio rerio mg/L LC50 semi-static 301 - 478: 96 h Lepomis macrochirus mg/L LC50	216: 96 h Daphnia magna mg/L EC50
Sodium Sulfate 7757-82-6	-	13500: 96 h Lepomis macrochirus mg/L LC50 13500 - 14500: 96 h Pimephales promelas mg/L LC50 3040 - 4380: 96 h Lepomis macrochirus mg/L LC50 static 6800: 96 h Pimephales promelas mg/L LC50 static	630: 96 h Daphnia magna mg/L EC50 2564: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No Information available.

Bioaccumulation

No Information available.

Other adverse effects No Information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and

regulations.

Contaminated packaging Do not reuse container.

US EPA Waste Number D002

14. TRANSPORT INFORMATION

The shipping classification information in this section (Section 14) is meant as a guide to the overall classification of the product. However, transportation classifications may be subject to change with changes in package size. Consult shipper requirements under 49 CFR, IATA and IMDG to assure regulatory compliance.

DOT Not regulated

15. REGULATORY INFORMATION **International Inventories TSCA** Does not comply DSL/NDSL Does not comply **EINECS/ELINCS** Does not comply **ENCS** Does not comply Does not comply **IECSC** Does not comply **KECL PICCS** Does not comply Does not comply **AICS**

Legend:

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

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium Dodecylbenzene	1000 lb	-	-	X
Sulfonate				
25155-30-0				

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Sodium Dodecylbenzene Sulfonate	1000 lb	-	RQ 1000 lb final RQ
25155-30-0			RQ 454 kg final RQ

US State Regulations

California Proposition 65

This product contains chemicals known to the state of California to cause cancer, or birth defects or other reproductive harm.

Chemical Name	California Proposition 65
Nitrilotriacetic Acid, Trisodium Salt - 18662-53-8	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Sodium Dodecylbenzene Sulfonate 25155-30-0	X	X	Х
Sodium Sulfate 7757-82-6	-	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

16. OTHER INFORMATION	

HMIS Health hazards 3 Flammability 0 Physical hazards 0 Personal protection X

Revision Date 28-May-2015

Legend

N/A - Not Applicable N/E - Not Established N/D - Not Determined N/K - Not Known

Issue Date12-Jul-2012Revision Date28-May-2015Revision NoteNew format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet