# SAFETY DATA SHEET

**Issue Date** 01-Dec-2015 **Revision Date** 01-Dec-2015 **Version** 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product identifier**
**Product Name** Rust-D NL406

**Other means of identification**
**SDS#** JC-013-015

**Details of the supplier of the safety data sheet**
**Company Name** Newline Industries LLC
111 Highline Drive
Longwood, FL 32750
407-480-5464

**Emergency telephone number**
**Emergency Telephone** INFOTRAC 1-800-535-5053

## 2. HAZARDS IDENTIFICATION

**Classification**

**OSHA Regulatory Status**
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|---|---|
| Acute toxicity - Oral | Category 4 |
| Acute toxicity - Dermal | Category 3 |
| Skin corrosion/irritation | Category 1 |
| Serious eye damage/eye irritation | Category 1 |
| Corrosive to metals | Category 1 |

**Label elements**

**Emergency Overview**

# Danger

**Hazard statements**
Harmful if swallowed
Toxic in contact with skin
Causes severe skin burns and eye damage
May be corrosive to metals

**Appearance** Clear **Physical state** Liquid **Odor** Acidic

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Do not breathe dust/fume/gas/mist/vapors/spray

**Precautionary Statements - Response**
IF exposed or concerned: Get medical advice/attention
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
Call a POISON CENTER or doctor/physician if you feel unwell
Wash contaminated clothing before reuse
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
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: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
Do NOT induce vomiting

**Precautionary Statements - Storage**
Store locked up

**Precautionary Statements - Disposal**
Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**
**Other Information**
Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No. | Weight-% | Trade Secret |
|---|---|---|---|
| Ammonium Fluoride | 12125-01-8 | 3-7 | * |
| Hydrofluoric Acid | 7664-39-3 | 1-5 | * |
| Phosphoric Acid | 7664-38-2 | 1-5 | * |

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

## 4. FIRST AID MEASURES

**First aid measures**

**General advice** Immediate medical attention is required.

**Skin Contact** Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

**Eye contact** Keep eye wide open while rinsing. Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Do not rub affected area.

**Inhalation** Remove to fresh air. Call a physician or poison control center immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Ingestion** Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Remove from exposure, lie down. Clean mouth with water and drink afterwards plenty of water. Call a physician or poison control center immediately.

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

**Most important symptoms and effects, both acute and delayed**

**Symptoms** Any additional important symptoms and effects are described in Section 11: Toxicology Information.

**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** Use personal protective equipment as required. Evacuate personnel to safe areas. 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. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

**Methods for cleaning up** Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Prevent product from entering drains. Dam up. After cleaning, flush away traces with water.

## 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 container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

**Incompatible materials** Incompatible with strong acids and bases. Incompatible with oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines** .

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---|---|---|---|
| Ammonium Fluoride<br>12125-01-8 | TWA: 2.5 mg/m$^3$ F | TWA: 2.5 mg/m$^3$ F<br>TWA: 2.5 mg/m$^3$ dust<br>(vacated) TWA: 2.5 mg/m$^3$ | TWA: 2.5 mg/m$^3$ F |
| Hydrofluoric Acid<br>7664-39-3 | TWA: 0.5 ppm F TWA: 2.5 mg/m$^3$ F<br>S*<br>Ceiling: 2 ppm F | TWA: 3 ppm F TWA: 2.5 mg/m$^3$ F<br>TWA: 2.5 mg/m$^3$ dust<br>(vacated) TWA: 3 ppm F (vacated)<br>TWA: 2.5 mg/m$^3$<br>(vacated) STEL: 6 ppm F | IDLH: 30 ppm<br>Ceiling: 6 ppm 15 min<br>Ceiling: 5 mg/m$^3$ 15 min<br>TWA: 3 ppm<br>TWA: 2.5 mg/m$^3$ |
| Phosphoric Acid<br>7664-38-2 | STEL: 3 mg/m$^3$<br>TWA: 1 mg/m$^3$ | TWA: 1 mg/m$^3$<br>(vacated) TWA: 1 mg/m$^3$<br>(vacated) STEL: 3 mg/m$^3$ | IDLH: 1000 mg/m$^3$<br>TWA: 1 mg/m$^3$<br>STEL: 3 mg/m$^3$ |

*NIOSH IDLH Immediately Dangerous to Life or Health*

**Other Information** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**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 impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Respiratory protection** Ensure adequate ventilation, especially in confined areas. 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. Wash contaminated clothing before reuse. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Take off all contaminated clothing and wash it before reuse. Wear suitable gloves and eye/face protection.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

| | |
|---|---|
| **Physical state** | Liquid |
| **Appearance** | Clear |
| **Color** | Colorless |
| **Odor** | Acidic |
| **Odor threshold** | No Information available |

| Property | Values | Remarks • Method |
|---|---|---|
| **pH** | <1 | |
| **Specific Gravity** | 1.01 | |
| **Viscosity** | <25 cP @ 25°C | |
| **Melting point/freezing point** | No Information available | |
| **Flash point** | None | |
| **Boiling point / boiling range** | >=212 ° F | |
| **Evaporation rate** | No Information available | |
| **Flammability (solid, gas)** | No data available | |
| **Flammability Limits in Air** | | |
| **Upper flammability limit:** | No Information available | |
| **Lower flammability limit:** | No Information available | |
| **Vapor pressure** | No Information available | |
| **Vapor density** | No Information available | |
| **Water solubility** | Complete | |
| **Partition coefficient** | No Information available | |
| **Autoignition temperature** | No Information available | |
| **Decomposition temperature** | No Information available | |

**Other Information**

| | |
|---|---|
| **Density Lbs/Gal** | 8.42 |
| **VOC Content (%)** | Not Applicable |

## 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**
Incompatible with strong acids and bases. Incompatible with oxidizing agents.
**Hazardous Decomposition Products**
Thermal decomposition can lead to release of irritating and toxic gases and vapors.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Product Information** Harmful by inhalation, ingestion, in contact with eyes and skin.

**Inhalation** Avoid breathing vapors or mists. Breathing of vapor can cause respiratory irritation and inflammation. Breathing of mist or liquid can cause burns to the respiratory tract.

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

**Skin Contact** Toxic in contact with skin. Corrosive. Contact with skin may cause severe irritation and burns.

**Ingestion** Harmful if swallowed. May be fatal if swallowed. Can burn mouth, throat, and stomach. Ingestion causes acute irritation and burns to the mucous membranes of the mouth, trachea, esophagus and stomach.

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|---|---|---|
| Hydrofluoric Acid 7664-39-3 | - | - | = 0.79 mg/L ( Rat ) 1 h |
| Phosphoric Acid 7664-38-2 | = 1530 mg/kg ( Rat ) | = 2740 mg/kg ( Rabbit ) | > 850 mg/m$^3$ ( Rat ) 1 h |

**Information on toxicological effects**

**Symptoms** No Information available.

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

**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.

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|---|---|---|---|---|
| Ammonium Fluoride 12125-01-8 | - | Group 3 | - | - |

***IARC (International Agency for Research on Cancer)***
*Group 3 -Not classifiable as a human carcinogen*

**Reproductive toxicity** No Information available.
**STOT - single exposure** No Information available.
**STOT - repeated exposure** 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.
**Target organ effects** EYES, Respiratory system, Skin.
**Aspiration hazard** No Information available.

**Numerical measures of toxicity - Product Information**

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

**The following values are calculated based on chapter 3.1 of the GHS document .**
**ATEmix (oral)** 661.00 mg/kg
**ATEmix (dermal)** 728.00 mg/kg
**ATEmix (inhalation-gas)** 55,883.15 mg/l
**ATEmix (inhalation-dust/mist)** 5.48 mg/l

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

| Chemical Name | Algae/aquatic plants | Fish | Crustacea |
|---|---|---|---|
| Ammonium Fluoride 12125-01-8 | - | 364.0: 96 h Pimephales promelas mg/L LC50 static | - |
| Hydrofluoric Acid | - | 660: 48 h Leuciscus idus mg/L LC50 | 270: 48 h Daphnia species mg/L |

| | | | |
|---|---|---|---|
| 7664-39-3 | | | EC50 |
| Phosphoric Acid<br>7664-38-2 | - | 3 - 3.5: 96 h Gambusia affinis mg/L LC50 | 4.6: 12 h Daphnia magna mg/L EC50 |

**Persistence and degradability**
No Information available.

**Bioaccumulation**
Bioaccumulative potential.

| Chemical Name | Partition coefficient |
|---|---|
| Hydrofluoric Acid<br>7664-39-3 | -1.4 |

**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.

| Chemical Name | RCRA | RCRA - Basis for Listing | RCRA - D Series Wastes | RCRA - U Series Wastes |
|---|---|---|---|---|
| Hydrofluoric Acid<br>7664-39-3 | U134 | - | - | U134 |

This product contains one or more substances that are listed with the State of California as a hazardous waste.

| Chemical Name | California Hazardous Waste Status |
|---|---|
| Ammonium Fluoride<br>12125-01-8 | Toxic<br>Corrosive |
| Phosphoric Acid<br>7664-38-2 | Corrosive |

## 14. TRANSPORT INFORMATION

The basic description below is specific to the container size. This information is provided for at a glance DOT information. Please refer to the container and/or shipping papers for the appropriate shipping description before tendering this material for shipment. For additional information, please contact the distributor listed in section 1 of this SDS.

**DOT**

| | |
|---|---|
| **UN/ID No.** | UN2922 |
| **Proper shipping name** | Corrosive liquids, toxic, n.o.s. |
| **Hazard Class** | 8 |
| **Subsidiary class** | 6.1 |
| **Packing Group** | III |
| **Special Provisions** | IB3, T7, TP1, TP28 |
| **Description** | UN2922, Corrosive liquids, toxic, n.o.s. (contains Ammonium Bifluoride), 8, 6.1, III |
| **Emergency Response Guide Number** | 154 |

**TDG**

| | |
|---|---|
| **UN/ID No.** | UN2922 |
| **Proper shipping name** | Corrosive liquids, toxic, n.o.s. |
| **Hazard Class** | 8 |
| **Subsidiary class** | 6.1 |

| | |
|---|---|
| **Packing Group** | III |
| **Description** | UN2922, Corrosive liquids, toxic, n.o.s. (contains Ammonium Bifluoride), 8, 6.1, III |

## 15. REGULATORY INFORMATION

### International Inventories

| | |
|---|---|
| **TSCA** | Complies |
| **DSL/NDSL** | Complies |

### Legend:

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

### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name | SARA 313 - Threshold Values % |
|---|---|
| Ammonium Fluoride - 12125-01-8 | 1.0 |
| Hydrofluoric Acid - 7664-39-3 | 1.0 |

#### 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 contains the following substances which are regulated 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 |
|---|---|---|---|---|
| Ammonium Fluoride 12125-01-8 | 100 lb | - | - | X |
| Hydrofluoric Acid 7664-39-3 | 100 lb | - | - | X |
| Phosphoric Acid 7664-38-2 | 5000 lb | - | - | X |

#### CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Chemical Name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|---|---|---|---|
| Ammonium Fluoride 12125-01-8 | 100 lb | - | RQ 100 lb final RQ<br>RQ 45.4 kg final RQ |
| Hydrofluoric Acid 7664-39-3 | 100 lb | 100 lb | RQ 100 lb final RQ<br>RQ 45.4 kg final RQ |
| Phosphoric Acid 7664-38-2 | 5000 lb | - | RQ 5000 lb final RQ<br>RQ 2270 kg final RQ |

### US State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals

#### U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|---|---|---|---|
| Ammonium Fluoride<br>12125-01-8 | X | X | X |
| Hydrofluoric Acid<br>7664-39-3 | X | X | X |
| Phosphoric Acid<br>7664-38-2 | X | X | X |

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not Applicable

## 16. OTHER INFORMATION

| | | | | |
|---|---|---|---|---|
| **NFPA** | **Health hazards** 3 | **Flammability** 0 | **Instability** 0 | **Physical and Chemical Properties** Yes |
| **HMIS** | **Health hazards** 3 | **Flammability** 0 | **Physical hazards** 0 | **Personal protection** C |

**Issue Date** 01-Dec-2015
**Revision Date** 01-Dec-2015
**Revision Note**
No Information available

**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**