1. Product and Company Identification

<table>
<thead>
<tr>
<th><strong>Product identifier</strong></th>
<th>Clear and Perfect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Other means of identification</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Recommended use</strong></td>
<td>Pool water clarifier</td>
</tr>
<tr>
<td><strong>Recommended restrictions</strong></td>
<td>None known.</td>
</tr>
</tbody>
</table>
| **Manufacturer information** | NC Brands  
40 Richards Ave.  
Norwalk, CT 06854 US  
Phone: (800) 753-1233  
Emergency Phone: CHEMTREC (800) 424-9300 |
| **Supplier** | See above. |

2. Hazards Identification

<table>
<thead>
<tr>
<th><strong>Physical hazards</strong></th>
<th>Not classified.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health hazards</strong></td>
<td>Not classified.</td>
</tr>
<tr>
<td><strong>Environmental hazards</strong></td>
<td>Not classified.</td>
</tr>
<tr>
<td><strong>WHMIS 2015 defined hazards</strong></td>
<td>Not classified</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Label elements</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hazard symbol</strong></td>
</tr>
<tr>
<td><strong>Signal word</strong></td>
</tr>
<tr>
<td><strong>Hazard statement</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Precautionary statement</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prevention</strong></td>
</tr>
<tr>
<td><strong>Response</strong></td>
</tr>
<tr>
<td><strong>Storage</strong></td>
</tr>
<tr>
<td><strong>Disposal</strong></td>
</tr>
</tbody>
</table>

| **WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC)** | None known |
|-----------------------------|
| **WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)** | None known |
| **Hazard(s) not otherwise classified (HNOC)** | None known. |

| **Supplemental information** | Not applicable. |

3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th><strong>Mixture</strong></th>
<th><strong>Chemical name</strong></th>
<th><strong>Common name and synonyms</strong></th>
<th><strong>CAS number</strong></th>
<th><strong>%</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Aluminum chlorhydrate</td>
<td></td>
<td>12042-91-0</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>1,2-Ethanediamine, polymer with (chloromethyl)oxirane and N-methylmethanamine</td>
<td></td>
<td>42751-79-1</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Polydimethylallylammonium chloride</td>
<td></td>
<td>26062-79-3</td>
<td>2</td>
</tr>
</tbody>
</table>

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

<table>
<thead>
<tr>
<th><strong>Inhalation</strong></th>
<th>If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Skin contact</strong></td>
<td>Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.</td>
</tr>
<tr>
<td><strong>Eye contact</strong></td>
<td>Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.</td>
</tr>
</tbody>
</table>
Ingestion
Rinse mouth. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.

Most important symptoms/effects, acute and delayed
Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed
If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Wear rubber gloves and safety glasses with side shields. Keep out of reach of children.

General information
Provide general supportive measures and treat symptomatically.

5. Fire Fighting Measures

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting equipment/instructions
Move containers from fire area if you can do so without risk.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards
No unusual fire or explosion hazards noted.

Hazardous combustion products
May include and are not limited to: Hydrogen chloride.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up
Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions
Prevent release to the environment. Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

7. Handling and Storage

Precautions for safe handling
Avoid contact with eyes. Avoid contact with skin. Avoid contact with clothing. Provide adequate ventilation. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. When using do not eat or drink.

Conditions for safe storage, including any incompatibilities
Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children.

8. Exposure Controls/Personal Protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum chloride (CAS 12042-91-0)</td>
<td>TWA</td>
<td>2 mg/m3</td>
</tr>
</tbody>
</table>
Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum chlorhydrate (CAS 12042-91-0)</td>
<td>TWA</td>
<td>1 mg/m³</td>
<td>Respirable.</td>
</tr>
</tbody>
</table>

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum chlorhydrate (CAS 12042-91-0)</td>
<td>TWA</td>
<td>1 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
</tbody>
</table>

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
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<td>TWA</td>
<td>1 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
</tbody>
</table>

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum chlorhydrate (CAS 12042-91-0)</td>
<td>TWA</td>
<td>2 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum chlorhydrate (CAS 12042-91-0)</td>
<td>TWA</td>
<td>1 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum chlorhydrate (CAS 12042-91-0)</td>
<td>TWA</td>
<td>2 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

Biological limit values
No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

- **Eye/face protection**: Wear safety glasses with side shields (or goggles).
- **Skin protection**
  - **Hand protection**: Impervious gloves. Confirm with reputable supplier first.
  - **Other**: As required by employer code.
- **Respiratory protection**: Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA’s respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI’s standard for respiratory protection (Z88.2).
- **Thermal hazards**: Not applicable.

General hygiene considerations
Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. When using do not eat or drink.

9. Physical and Chemical Properties

- **Appearance**: Clear
- **Physical state**: Liquid
- **Form**: Liquid
- **Color**: Light yellow
- **Odor**: Odorless
- **Odor threshold**: Not available
- **pH**: 3 - 4.5
- **Melting point/freezing point**: Not available
- **Initial boiling point and boiling range**: Not available
- **Pour point**: Not available
- **Specific gravity**: 1.05 - 1.1
Partition coefficient (n-octanol/water) Not available.
Flash point Not available.
Evaporation rate Not available.
Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits
  Flammability limit - lower (%) Not available.
Flammability limit - upper (%) Not available.
Explosive limit - lower (%) Not available.
Explosive limit - upper (%) Not available.

Vapor pressure Not available.
Vapor density Not available.
Relative density 8.7 - 9.2 lb/gal
Solubility(ies) Miscible
Auto-ignition temperature Not available.
Decomposition temperature Not available.
Viscosity Not available.

10. Stability and Reactivity

Reactivity This product may react with strong oxidizing agents.
Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.
Chemical stability Material is stable under normal conditions.
Conditions to avoid Do not mix with other chemicals.
Incompatible materials Strong oxidizing agents.
Hazardous decomposition products May include and are not limited to: Hydrogen chloride.

11. Toxicological Information

Routes of exposure Eye, Skin contact, Inhalation, Ingestion.

Information on likely routes of exposure
  Ingestion Expected to be a low ingestion hazard. May cause stomach distress, nausea or vomiting.
  Inhalation No adverse effects due to inhalation are expected.
  Skin contact No adverse effects due to skin contact are expected.
  Eye contact Not available.

Symptoms related to the physical, chemical and toxicological characteristics Not available.

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td>Not available</td>
</tr>
<tr>
<td>Inhalation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td></td>
<td>Not available</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
</tbody>
</table>
### Components and Species

**Aluminum chlorhydrate (CAS 12042-91-0)**

<table>
<thead>
<tr>
<th>Test Results</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute</strong></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rabbit</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
</tr>
<tr>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>Not available</td>
</tr>
<tr>
<td>LC50</td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
</tr>
</tbody>
</table>

**Polydimethyldiallylammonium chloride (CAS 26062-79-3)**

<table>
<thead>
<tr>
<th>Test Results</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute</strong></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Not available</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>Not available</td>
</tr>
<tr>
<td>LC50</td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Not available</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**
- Not available.

**Exposure minutes**
- Not available.

**Erythema value**
- Not available.

**Oedema value**
- Not available.

**Serious eye damage/eye irritation**
- Not available.

**Corneal opacity value**
- Not available.

**Iris lesion value**
- Not available.

**Conjunctival reddening value**
- Not available.

**Conjunctival oedema value**
- Not available.

**Recover days**
- Not available.

**Respiratory or skin sensitization**

**Respiratory sensitization**
- Not classified.

**Skin sensitization**
- This product is not expected to cause skin sensitization.

**Mutagenicity**
- No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity**
- This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. See below.

**Canada - Manitoba OELs: carcinogenicity**
- ALUMINUM METAL AND INSOLUBLE COMPOUNDS, RESPIRABLE FRACTION (CAS 12042-91-0)
- Not classifiable as a human carcinogen.

- Not listed.

**Reproductive toxicity**
- This product is not expected to cause reproductive or developmental effects.

**Teratogenicity**
- Not classified.

**Specific target organ toxicity - single exposure**
- Not classified.

**Specific target organ toxicity - repeated exposure**
- Not classified.

**Aspiration hazard**
- Not classified.

**Chronic effects**
- Not classified.

### 12. Ecological Information

**Ecotoxicity**
- Harmful to aquatic life with long lasting effects.

**Persistence and degradability**
- No data is available on the degradability of this product.
Bioaccumulative potential: No data available.
Mobility in soil: No data available.
Mobility in general: Not available.
Other adverse effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal Considerations

Disposal instructions: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations: Dispose in accordance with all applicable regulations.
Hazardous waste code: The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products: Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging: Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

Transport of Dangerous Goods (TDG) Proof of Classification: In accordance with Part 2.2.1 (SOR/2014-152) of the Transportation of Dangerous Goods Regulations, we certify that the classification of this product is correct as of the SDS date of issue.
U.S. Department of Transportation (DOT): Not regulated as dangerous goods.
Transportation of Dangerous Goods (TDG - Canada): Not regulated as dangerous goods.

15. Regulatory Information

Canadian federal regulations: This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.
  Greenhouse Gases: Not listed.
  Precursor Control Regulations: Not regulated.
WHMIS 2015 Exemptions: Not applicable
US federal regulations: This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
Superfund Amendments and Reauthorization Act of 1986 (SARA)
  Hazard categories: Immediate Hazard - No, Delayed Hazard - No, Fire Hazard - No, Pressure Hazard - No, Reactivity Hazard - No
  SARA 302 Extremely hazardous substance: No
  SARA 311/312 Hazardous chemical: No
  SARA 313 (TRI reporting): Not regulated.
Other federal regulations: Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

US state regulations

**US - California Hazardous Substances (Director's): Listed substance**
- Aluminum chlorhydrate (CAS 12042-91-0) Listed.

**US - Minnesota Haz Subs: Listed substance**
- Aluminum chlorhydrate (CAS 12042-91-0) Listed.

**US - Texas Effects Screening Levels: Listed substance**
- 1,2-Ethanediamine, polymer with (chloromethyl)oxirane and N-methylmethanamine (CAS 42751-79-1) Listed.
- Aluminum chlorhydrate (CAS 12042-91-0) Listed.
- Polydimethylallylammonium chloride (CAS 26062-79-3) Listed.

**US. Massachusetts RTK - Substance List**
Not regulated.

**US. New Jersey Worker and Community Right-to-Know Act**
Not regulated.

**US. Pennsylvania Worker and Community Right-to-Know Law**
- Aluminum chlorhydrate (CAS 12042-91-0)

**US. Rhode Island RTK**
Not regulated.

**US. California Proposition 65**
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

### Inventory status

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)*

### 16. Other Information

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAMMABILITY</td>
<td>0</td>
</tr>
<tr>
<td>PHYSICAL HAZARD</td>
<td>0</td>
</tr>
<tr>
<td>PERSONAL PROTECTION</td>
<td>x</td>
</tr>
</tbody>
</table>

**Disclaimer**
The information in the sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

**Issue date**
22-December-2016

**Version #**
01

**Effective date**
22-December-2016

**Prepared by**
Dell Tech Laboratories, Ltd.  Phone: (519) 858-5021

**Other information**
For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.