1. IDENTIFICATION
Product Name:                 Asaclean™ NCR, NCT, NCH, NCF
SDS Number:                  ASA-Gr103-US-002

RESPONSIBLE PARTY IN THE USA:
Company Name:                Sun Plastech Inc.
Address:                     1055 Parsippany Blvd.
                            Parsippany, NJ 07054
Telephone number:            1-973-257-1999
Facsimile number:            1-973-257-1011

EMERGENCY TELEPHONE NUMBER:
CHEMTREC                     Telephone number: 1-800-424-9300 (US/Canada) or 1-703-527-3887 (International)

RECOMMENDED APPLICATION:
Purging compound for thermoplastic injection molding machines and extruders

RESTRICTION ON USAGE:
Usage for the following applications is strictly prohibited:
- Being implanted into human body.
- Invasive or non-invasive contact with human body (including blood, body fluids, etc.) continuously for 30 days or more

2. HAZARD(S) IDENTIFICATIONS
GHS CLASSIFICATION:

PHYSICAL AND CHEMICAL HAZARDS:
Combustible solid: Classification not possible
Metal-corrosive material: Classification not possible
Those items except the above are out of scope for classification.

HEALTH TOXICITY:
Acute toxicity (oral): Classification not possible
Acute toxicity (dermal): Classification not possible
Acute toxicity (Inhalation: gases): Classification not possible
Acute toxicity (Inhalation: vapors): Classification not possible
Acute toxicity (Inhalation: dusts / mists): Classification not possible
Skin corrosion / irritation: Classification not possible
Serious eye damage / eye irritation: Classification not possible
Respiratory sensitization: Classification not possible
Skin sensitization: Classification not possible
Germ cell mutagenicity: Classification not possible
Carcinogenicity: Classification not possible
Reproductive toxicity: Classification not possible
Specific target organ / systemic toxicity (single exposure): Classification not possible
Specific target organ / systemic toxicity (repeated exposure): Classification not possible
Aspiration Hazard: Classification not possible

HAZARDOUS TO THE AQUATIC ENVIRONMENT:
Toxicity to the aquatic environment (acute): Classification not possible
Toxicity to the aquatic environment (chronic): Classification not possible

GHS LABEL ELEMENTS:
Pictograms: None
Signal word: None
Hazard statements: None
Precautionary statements: None
3. COMPOSITION / INFORMATION ON INGREDIENTS
Classification of the substance or mixture: Mixture

<table>
<thead>
<tr>
<th>Grade Type</th>
<th>Composition</th>
<th>Content %</th>
<th>CAS No.</th>
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</thead>
<tbody>
<tr>
<td>NCR</td>
<td>Olefinic resin</td>
<td>More than 70</td>
<td>Rgstd/Non-disclosed</td>
</tr>
<tr>
<td></td>
<td>Resin additives</td>
<td>Less than 10</td>
<td>Rgstd/Non-disclosed</td>
</tr>
<tr>
<td></td>
<td>Inorganic additives</td>
<td>Less than 30</td>
<td>Rgstd/Non-disclosed</td>
</tr>
<tr>
<td>NCT</td>
<td>Olefinic resin</td>
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<td>Rgstd/Non-disclosed</td>
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<td></td>
<td>Resin additives</td>
<td>Less than 10</td>
<td>Rgstd/Non-disclosed</td>
</tr>
<tr>
<td></td>
<td>Inorganic additives</td>
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</tr>
<tr>
<td>NCH</td>
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<tr>
<td></td>
<td>Inorganic additives</td>
<td>Less than 30</td>
<td>Rgstd/Non-disclosed</td>
</tr>
</tbody>
</table>

The specific chemical identities and percentages of composition have been withheld as trade secrets.

4. FIRST-AID MEASURES

INHALATION: When feeling sick by inhaling gas and / or fumes generated from molten plastics, move the victim from the area to fresh air and wait for recovery. Seek medical attention.

SKIN CONTACT: For skin contact with powder or pellets, wash thoroughly with soap and water. For skin contact with molten plastic, immediately wash thoroughly and cool down with soap and water. Hardened resin on the skin should not be forcibly peeled off. Seek medical attention if there is a burn.

EYE: Because there is a possibility of damaging the eyeball, immediately flush the affected eye(s) with copious quantity of clean water for at least 15 minutes. Remove contact lens(es) at once unless the lens(es) is/are stuck to eye(s).

INGESTION: If swallowed, induce vomiting. Seek immediate medical attention if abnormality is felt.

PROTECTION TO FIRST-AIDERS: Ventilate gas generated from the molten plastics / Wear protective gear.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Water spray, water-jet and other various fire extinguishers.

SPECIFIC HAZARDS / TOXICITY AT FIRE: May emit gases including carbon monoxide, carbon dioxide, etc.

FIRE-FIGHTING INSTRUCTIONS: Extinguish fire from a windward direction.

PROTECTION TO FIRE-FIGHTERS: Wear protective clothing. In case of large amount of gases emitted, breathing apparatus should be used.
6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTION: When either pellets or powders are spilled on the floor, promptly clean to prevent slipping.

ENVIRONMENTAL NOTES: Due to possible adverse affects to fish, birds, etc., immediately clean up any material that may have spilled into bodies of water.

REMOVAL METHOD: Sweep with vacuum cleaner, broom, etc., and dispose of properly.

PREVENTIVE MEASURE OF SECONDARY DISASTER: None

7. HANDLING AND STORAGE

HANDLING:  
1) Application temperature: Refer to Table 1 on page 7 of 7.  
2) Though there is less likelihood of pellets igniting under normal temperatures, avoid any fire/ignition sources in the vicinity of the product and perform adequate housekeeping to keep the surrounding clean.  
3) Cool down purge pile with water.  
4) Ensure proper ventilation since resins processed at high temperatures will emit gases. Local ventilation preferably should be provided.

STORAGE:  
SUITABLE STORAGE CONDITION:  
1) Store material in away from heat and ignition sources.  
2) Avoid direct sunlight.  
3) Store material away from high temperatures and high humidity.

SAFE CONTAINER MATERIAL FOR PACKING: Use appropriate storage containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

MEASURES FOR FACILITIES: Provide local exhaust ventilation, for comfortable working environments.

CONTROL OF CONCENTRATION: Not established

ALLOWABLE CONCENTRATION: Although ACGIH has not established the allowable concentration for dust, the following values are considered to be appropriate for operation.

ACGIH (2014 version):  
Allowable concentration as general dust (TWA)  
INHALABLE PARTICULATE: 10mg / m$^3$  
RESPIRABLE PARTICULATE: 3 mg / m$^3$

PROTECTIVE TOOLS:  
Respiratory organ: Box respirator for organic gas should be worn when working in areas where inhalation of high temperature gases is possible.  
For hand: Wear heat-proof gloves when molten resin is handled.  
For eye: During purging operation, resin-made glasses and resin-made goggles with side-shields should be worn.  
For skin & body: Work wear with long sleeves is recommended.
9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:

- Physical form: Solid
- Shape: Pellet
- Color: Milky white ~ light yellow
- Odor: Specific slight odor
- Odor threshold: Not available
- pH: Not applicable
- Melting Point: Does not exhibit a sharp melting point, but begins to soften at about 120°C
- Decomposition Temperature: No data
- Flash Point: Greater than 360°C
- Auto-ignition Temperature: Greater than 400°C

Explosive Limits
- Lower Limit: Not applicable (Lower limit for dust explosion: 15g/m³)
- Upper Limit: Not applicable

Specific Gravity: Refer to Table 1 on page 7 of 7.

Solubility:
- Water: Insoluble
- Other solvent: Insoluble for organic solvent under normal temperature.

Vapor pressure: Not available
Vapor density: Not available
Relative density: Not available
Partition coefficient: Not available
Viscosity: Not available

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal temperatures.
Above 145°C, some decomposition may occur, with emission of benign gaseous byproducts (primarily carbon dioxide).

REACTIVITY: Incompatibility with other materials is not known.

CONDITIONS TO AVOID:
- Avoid using outside the specified temperature range.
- Do not let sit in barrel for more than 30 minutes at a temperature of more than 300°C

MATERIALS TO AVOID: None

HAZARDOUS / TOXIC DECOMPOSITION PRODUCTS:
The product may emit gases such as carbon monoxide, carbon dioxide, nitrogen oxide, etc. during incineration.
## 11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th></th>
<th>Base Resin</th>
<th>Resin Additives</th>
<th>Inorganic Additives</th>
<th>Composition (Product)</th>
</tr>
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<tbody>
<tr>
<td><strong>Acute Toxicity</strong></td>
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<tr>
<td><strong>Acute Toxicity</strong></td>
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<tr>
<td>(Inhalation: gases)</td>
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<tr>
<td><strong>Acute Toxicity</strong></td>
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<tr>
<td>(Inhalation: vapour)</td>
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<td>(No data available)</td>
<td>(No data available)</td>
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<tr>
<td>Toxicity (repeated exposure)</td>
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<td><strong>Respiratory</strong></td>
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## 12. ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th></th>
<th>Base Resin</th>
<th>Resin Additives</th>
<th>Inorganic Additives</th>
<th>Composition (Product)</th>
</tr>
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<tbody>
<tr>
<td><strong>Hazardous to The</strong></td>
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<td><strong>Hazardous to The</strong></td>
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<td>Aquatic Environment</td>
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</table>
13. DISPOSAL CONSIDERATIONS
Refer to all federal, state and local regulations.
Do not dump this product into sewers, on the ground or into any body of water.

14. TRANSPORT INFORMATION

LAND TRANSPORT
ADR, RID, DOT
Class: Not applicable
Packing Group (PG): Not applicable
UN Number: Not applicable
Proper Shipping Name: ASACLEAN (Purging Compound)

SEA TRANSPORT
IMDG
Class: Not applicable
Packing Group (PG): Not applicable
UN Number: Not applicable
Proper Shipping Name: ASACLEAN (Purging Compound)

AIR TRANSPORT
ICAO/IATA
Class: Not applicable
Packing Group (PG): Not applicable
UN Number: Not applicable
Proper Shipping Name: ASACLEAN (Purging Compound)

15. REGULATORY INFORMATION
USA
TSCA Inventory: All ingredients are listed or exempt.
EPCRA Section 312/313: No ingredients are listed above reportable quantities.
CERCLA Hazardous Substances: No ingredients are listed above reportable quantities.
Canada: Canadian Environmental Protection Act, 1999
16. OTHER INFORMATION

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Asahi Kasei Corporation. It relates only to the specific products designated herein, and does not relate to use in combination with any other material or in any process. Asahi Kasei Corporation assumes no legal responsibility for use of or reliance upon this information.

According to our company policy, usage of this product to purge when producing the medical equipment written below, or to produce general medical equipment itself are strictly prohibited.
- Being implanted into the human body.
- Invasive (human body) applications
- Contact with the human body (including blood, body fluid, etc.) continuously for 30 days or more.

Asaclean NCT, NCH and NCF grades are not suitable for hot runner cleaning. Do not get feed them into hot runner.

For any the other medical-related applications, please contact the Asaclean Business Department. (Phone: +81-3-3296-3274).

For any query with respect to what is contained herein, please refer to:
Asaclean Technical Group
Asahi Kasei Corporation
1-3-1 Yakoh, Kawasaki-ku, Kawasaki City, Kanagawa, 210-0863, Japan;
Tel: +81-44-271-2503, Fax: +81-44-271-2333

(Table1)

<table>
<thead>
<tr>
<th>Grade Type</th>
<th>Temperature Range for Use (Unit: °C)</th>
<th>Specific Gravity (23°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCR</td>
<td>175-360</td>
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<tr>
<td>NCF</td>
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Records of revision
April 1, 2016: Changed company name (Asahi Kasei Corporation)