1. IDENTIFICATION

Product Name: ASACLEAN™ U, newE, newEX, SA, C, SL
SDS Number: ASA-Gr1-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
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>
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<td>More than 50</td>
<td>Rgstd/Non-disclosed</td>
</tr>
<tr>
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<td>Resin additives</td>
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<td>Inorganic additives</td>
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<td>newE</td>
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</tr>
<tr>
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<td>Inorganic additives (Include GF)</td>
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<td>Other additives</td>
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<td></td>
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<tr>
<td>C</td>
<td>Styrenic resin</td>
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<td>Resin additives</td>
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<td>Rgstd/Non-disclosed</td>
</tr>
<tr>
<td></td>
<td>Inorganic additives</td>
<td>More than 50</td>
<td>Rgstd/Non-disclosed</td>
</tr>
<tr>
<td></td>
<td>Other additives</td>
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<td>Rgstd/Non-disclosed</td>
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<tr>
<td></td>
<td>Inorganic additives</td>
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</tr>
<tr>
<td></td>
<td>Other additives</td>
<td>Less than 10</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, nitrogen oxide, 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 both pellets and 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: Application temperature: Refer to Table 1 on page 7 of 7.
1) 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.
2) Cool down purge pile with water.
3) 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
ENGINEERING CONTROLS: Provide local exhaust ventilation for comfortable working
environments.
CONTROL OF CONCENTRATION: Not established
EXPOSURE LIMITS: 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 / m³
 RESPIRABLE PARTICULATE: 3 mg / m³

INDIVIDUAL PROTECTION MEASURES:
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 when molten resin is
handled.
9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:**
- Physical form: Solid
- Shape: Pellet
- Color: Milky white ~ light yellow, (SL: Transparency and the white are mixed.)
- Odor: Specific slight odor
- Odor threshold: Not available
- pH: Not applicable
- Melting Point: Does not exhibit sharp melting point, but softens at about 80°C for SL and about 130°C for other types.
- Decomposition Temperature: No data
- Flash Point: 380°C
- Auto-ignition Temperature: 490°C
- Explosive Limits
  - Lower Limit: Not applicable (Lower limit for dust explosion: 35g/m³)
  - Upper Limit: Not applicable
- Specific Gravity: Refer to Table 1 on page 7 of 7.
- Solubility:
  - Water: Insoluble
  - Other solvent: Soluble in methyl ethyl ketone, cyclohexanone, etc. (except for inorganic content).
- 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 temperature.

**REACTIVITY:** None

**CONDITIONS TO AVOID:**
- Avoid using outside the specified range for the use temperature.
- Do not let sit in barrel for more than 30 minutes at temperatures above 300°C for U, newE, SA, C, SL.
- Do not let sit in barrel for ANY amount of time at ANY temperature for newEX.

**MATERIALS TO AVOID:** None

**HAZARDOUS / TOXIC DECOMPOSITION PRODUCTS:**
- May produce carbon monoxide, carbon dioxide, nitrogen oxide, etc. during incineration. May produce methyl methacrylate during pyrolysis.
### 11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th></th>
<th>Base Resin</th>
<th>Resin Additives</th>
<th>Inorganic Additives (Including GF)</th>
<th>Other Additives</th>
<th>Composition (Product)</th>
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</thead>
<tbody>
<tr>
<td><strong>Acute Toxicity</strong></td>
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<tr>
<td><strong>Serious Eye Damage /</strong></td>
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<tr>
<td><strong>Eye Irritation</strong></td>
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<td><strong>Sensitization</strong></td>
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<td>Classification not possible (No data available)</td>
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<td></td>
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<td>Classification not possible Remarks*</td>
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<tr>
<td>by Inhalation</td>
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<td></td>
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</tbody>
</table>

**Remarks**:
*: Even though the product is classifiable for some items if looked solely as a GF (glass fiber) unit, it's labeled as "Classification not possible" as a form of kneaded-pellet product since it (GF content) is judged as having little effect.
12. ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th></th>
<th>Base Resin</th>
<th>Resin Additives</th>
<th>Inorganic Additives</th>
<th>Other Additives</th>
<th>Composition (Product)</th>
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<td>Hazardous to The Aquatic Environment (Acute)</td>
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</tbody>
</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

HMIS
Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used only in conjunction with a fully implemented HMIS® program by workers who have received appropriate HMIS® training. HMIS® is a registered trade and service mark of the NPCA. HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6668.
16. OTHER INFORMATION

This information is furnished without warranty, express or implied, except that it is accurate to the
best knowledge of Asahi Kasei Corporation. It relates only to the specific product 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, both usages of this product to purge when producing
the following medical equipment written below and to produce general medical equipment itself
are strictly prohibited.
- Being implanted into human body.
- Invasive (human body) applications
- Contact with human body (including blood, body fluid, etc.) continuously for 30 days or more.
For any 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 Yachoh, Kawasaki-ku, Kawasaki City, Kanagawa, 210-0863, Japan;
Tel: +81-44-271-2503, Fax: +81-44-271-2333

<table>
<thead>
<tr>
<th>Grade Type</th>
<th>Temperature Range for Use (Unit: °C)</th>
<th>Specific Gravity (23°C)</th>
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</thead>
<tbody>
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</table>

Records of revision
April 1, 2016: Changed company name (Asahi Kasei Corporation)