

**MATERIAL SAFETY DATA SHEET**

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**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: ASACLEAN® ADVANTAGE

GENERAL USE: Purging compound for plastic injection molding machines and extruders

PRODUCT DESCRIPTION: Blend of additives in styrenic resin

CHEMICAL NAME: Modified styrenic resin

CHEMICAL OR STRUCTURAL FORMULA:  $(C_8H_8 \cdot C_3H_3N)_x$ , etc.

COMPOSITION: Styrenic resin (70%), Additives (30%)

**MANUFACTURER**

COMPANY NAME: Sun Plastech, Inc

Address: 1055 Parsippany Boulevard, Suite 205, Parsippany, NJ 07054, USA

**EMERGENCY TELEPHONE NUMBER****CHEMTREC**

United States: (800) 424-9300 24 hours Everyday

International: +1-703-527-3887 (Collect) 24 hours Everyday

**Non-transportation:**

Sun Plastech Inc.

Telephone (973) 257-1999 9 am - 6 pm EST M-F

Asahi Kasei Chemicals Corporation (Japan)

Telephone +81-3-3296-5109 8:30 am - 6 pm Japan Standard Time M - F

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**2. COMPOSITION / INFORMATION ON INGREDIENTS**

This material consists primarily of high molecular weight polymers, which are not expected to be hazardous.

CAS NO.: Registered as each composition

UN CLASSIFICATION &amp; UN NO.: Not Applicable

OSHA HAZARDS (29 CFR 1910.1200): None

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**3. HAZARDS IDENTIFICATION****EMERGENCY OVERVIEW:**

Solid pellets with slight or no odor. Spilled pellets create slipping hazard. Can burn in a fire creating dense toxic smoke. Molten plastic can cause severe thermal burns.

NOTE: Fumes produced during melt processing may cause eye, skin and respiratory tract irritation. Secondary operations, such as grinding, sanding or sawing, can produce dust, which may present an explosion or respiratory hazard.

**POTENTIAL HEALTH EFFECTS****PRIMARY ROUTES OF EXPOSURE**

EYE: Material may cause irritation or injury due to mechanical action

SKIN: Pellets not likely to cause skin irritation.

INGESTION: Not acutely toxic.

INHALATION: Pellet inhalation unlikely due to physical form.

**CHRONIC/CARCINOGENICITY**

NTP: Not Tested OSHA: Not Regulated

IARC: Classified in Group 3 as styrenic resin (not classifiable as to its carcinogenicity to humans.)

**MELT PROCESSING HEALTH EFFECTS:**

Molten plastic can cause severe burns.

Processing fumes may cause irritation to the eyes, skin and respiratory tract, and in cases of severe over-exposure, nausea and headache.

**MEDICAL RESTRICTIONS:**

Certain sensitive individuals and individuals with respiratory impairments may be affected by exposure to components in the processing fumes.

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### 4. FIRST AID MEASURES

**EYE:** Remove contact lens (es) at once unless the contact lens (es) sticks to eye(s). Immediately flush the affected eye(s) well with copious quantity of clean water for at least 15 minutes. Do not rub eye(s) to prevent irritation and damages to cornea(s). Seek immediate medical attention.

**SKIN CONTACT:** Wash affected area thoroughly with water. For skin contact with fume condensate, immediately wash affected area thoroughly with soap and water. For molten plastic skin contact, cool rapidly with water, and immediately seek medical attention.

**INGESTION:** Not probable. If swallowed, seek medical attention.

**INHALATION:** Pellet not likely to be inhaled due to physical form. When gas and/or fumes generated from the molten resin is inhaled, remove the victim from the area to fresh air.

**MELT PROCESSING:** For molten plastic skin contact, cool affected area rapidly with water and immediately seek medical attention.

**WARNING:** Do not attempt removal of plastic without medical assistance. Do not use solvent for removal.

For processing fume inhalation irritation, leave contaminated area and breathe fresh air. If coughing, difficult breathing or any other symptoms develop, seek medical attention at once, **even if symptoms develop at a later time.**

For skin contact with fume condensate, immediately wash thoroughly with soap and water. If irritation develops, seek medical attention.

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### 5. FIRE FIGHTING MEASURES

**FIRE FIGHTING:** Approved pressure demand breathing apparatus and protective clothing should be used for all fires. Water spray is a preferred extinguishing medium. This material will melt but will not be carried on the surface of water.

**EXTINGUISHING MEDIA:** Water spray and foam. Water and water-jet are the best extinguishing media. Carbon dioxide and dry chemical are not generally recommended because their lack of cooling capacity may permit reignition.

**HAZARDOUS COMBUSTION PRODUCTS:** Hazardous combustion products may include intense heat, dense black smoke, carbon monoxide, carbon dioxide, hydrogen cyanide and small amount of aromatic and aliphatic hydrocarbons.

**FLASH POINT:** Not applicable

**LOWER FLAMMABLE LIMIT:** Not established

**UPPER FLAMMABLE LIMIT:** Not established

**CONDITIONS OF FLAMMABILITY:** Requires a continuous flame source to ignite.

**EXPLOSION DATA**

**IMPACT SENSITIVITY:** Not sensitive to mechanical impact.

**STATIC DISCHARGE:** See 7. HANDLING AND STORAGE

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### 6. ACCIDENTAL RELEASE MEASURES

To prevent the danger of slips or falls, sweep or gather up material and place in proper container for disposal or recovery. Immediately collect released resin to prevent environmental contamination.

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### 7. HANDLING AND STORAGE

**HANDLING:** Should process this material under the recommended temperature range {180°C(350°F)-360°C(680°F) } specified in "ASACLEAN® Technical Information" (Page 2). However avoid long retention at the temperature over 300°C (570°F) for any extended time (over 30 minutes). Long retention at such high temperature will cause liquefaction and generate large quantity of gases. Gases generated in the molding process may cause irritation to the skin and respiratory tract, and in cases of severe over-exposure, nausea and headache. Prevent contact with skin and eyes. Use good industrial hygiene practices. Provide adequate ventilation. Secondary operations such as grinding, sanding or sawing may produce a dust explosion hazard due to electrostatic charge or electrical spark. Use aggressive housekeeping activities to prevent dust accumulation. Employ bonding, grounding, venting and explosion relief provisions in accordance with accepted engineering practices.

**STORAGE:** Store in a dry place away from excessive heat and sources of ignition. Avoid direct sunlight. Keep material away from electrostatic charge.

**NOTE:** This material has been designed and tested for purging and cleaning of molding machine, and no other use nor application is recommended.

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**MATERIAL SAFETY DATA SHEET****8. EXPOSURE CONTROLS/PERSONAL PROTECTION****EXPOSURE LIMITS:**

Particulates not otherwise classified

OSHA PEL : 15 mg/m<sup>3</sup> (Total dust)  
5 mg/m<sup>3</sup> (Respirable fraction)  
ACGIH TLV-TWA (1995-1996): 10 mg/m<sup>3</sup> (Inhalable particulate)  
3 mg/m<sup>3</sup> (Respirable particulate)

**ENGINEERING MEASURES:** In cases where possibilities of dust formation, gas generation, or vapor emission exist, provide local ventilation. Ventilation requirements must be locally determined to limit exposure to materials at their point of use.

**PERSONAL PROTECTION:**

**EYE/FACE:** Wear safety glasses or chemical goggles while using or handling this material. In addition, use full face shield when cleaning processing fume condensates from hoods, ducts and other surfaces.

**SKIN:** When handling pellets, avoid prolonged or repeated contact with skin. During melt processing, wear long pants, long sleeves, well insulated gloves and face shield. Use appropriate protective clothing, including chemical resistant gloves, to prevent any contact with processing fume condensates.

**RESPIRATORY:** When processing fumes are not adequately controlled, use MSHA/NIOSH-approved respirator for protection from organic vapors and acid gases. When dust or powder from secondary operations, (such a grinding, sanding, or sawing) are not adequately controlled, use MSHA/NIOSH-approved respirator for protection from dust.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**PHYSICAL STATE:** Solid

**ODOR AND APPEARANCE:** Slight or no odor. Light yellow

**BOILING POINT:** Not applicable

**MELTING POINT:** Does not exhibit a sharp melting point, but softens gradually over a wide temperature range between 130°C (270°F) and 150°C (300°F).

**VAPOR PRESSURE (mmHg):** Negligible

**VAPOR DENSITY (air=1):** Not applicable

**SPECIFIC GRAVITY:** 1.19

**WATER SOLUBILITY:** Insoluble, % VOLATILES: Negligible, PH: Not applicable

**ODOR THRESHOLD:** Not established

**EVAPORATION RATE:** Negligible

**COEFFICIENT WATER/OIL DISTR.:** Not established

**10. STABILITY AND REACTIVITY**

**STABILITY:** Stable under recommended conditions of storage.

**REACTIVITY:** Not reactive under recommended conditions of handling, storage, processing and use.

**CONDITIONS TO AVOID:** In order to avoid autoignition / hazardous decomposition of hot thick masses of plastic, purgings should be collected in small, flat shapes or thin strands to allow for rapid cooling in water.

**HAZARDOUS DECOMPOSITION PRODUCTS:** When ignited, carbon monoxide, carbon dioxide, hydrogen cyanide and small amount of aromatic and aliphatic hydrocarbons.

**AUTOIGNITION TEMPERATURE:** 410°C (770°F)

**FLAMMABILITY:** Flammable

**STORAGE STABILITY:** Stable

**REACTIVITY WITH WATER:** None

**OXIDIZING PROPERTY:** None

**SELF-REACTIVITY/POTENTIAL FOR EXPLOSION:** None

**11. TOXICOLOGICAL INFORMATION**

**EYE:** This material is not considered primary eye irritant. When similar materials, in finely divided form, were placed into the eyes of rabbits, slight transient redness or discharge occurred due to the slightly abrasive nature of the resin particles.

**SKIN:** This material is not considered primary skin irritant.

**ACUTE INHALATION:** Processing fumes from similar materials are not considered toxic. There were no distinct or consistent treatment related tissue or organ changes noted in gross necropsies.

**ACUTE TOXICITY:** Oral LD 50 (Rat) > 2,000mg/kg estimated (styrenic resin). The toxicological properties of this substance have not been thoroughly investigated.

**CHRONIC TOXICITY:** No data available.

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CARCINOGENIC EFFECTS: Classified in Group 3 of IARC as styrenic resin (not classifiable as to its carcinogenicity to humans.)

**12. ECOLOGICAL INFORMATION**

GENERAL: Not expected to present any significant ecological problems.

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**13. DISPOSAL CONSIDERATIONS**

Comply with all federal, state and local regulations. Do not dispose into sewers, body of water or onto street.

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**14. TRANSPORT INFORMATION**

NOTE: Avoid water and careless handling to prevent damage to the container.

DOT (Department of Transportation)

PROPER SHIPPING NAME: Not regulated

HAZARD CLASS: Not regulated

IDENTIFICATION NUMBER: Not regulated

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**15. REGULATORY INFORMATION****US FEDERAL REGULATIONS**

OSHA: Not hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

TSCA: On TSCA Inventory (all components)

CERCLA/SUPERFUND: 40CFR117,302

This material contains no Reportable Quantity Substances.

SARA HAZARD CATEGORY: This material has been reviewed according to the EPA Hazard Categories promulgated under SECTION 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and is considered, under applicable definitions, to meet the following categories:

Not to have met any hazard category.

**SARA 313 INFORMATION**

This material contains no substance subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40CFR Part 372.

**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) 327-6868.*

- HMIS® = Health-0, F-1, R= 0, PPE - B

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**16. OTHER INFORMATION**

Refer to "ASACLEAN® Technical Information" for additional guidance and information.

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NOTE: The information furnished in this Material Safety Data Sheet is accurate to the best knowledge of Asahi Kasei Chemicals Corporation ("Asahi") as of the date of its publication. This MSDS is not intended to create any liability of any kind on the part of Asahi. In no event will Asahi be responsible for any death, injury or damage of any nature resulting from the use of, reliance upon, or misuse of the MSDS or material to which it refers. The data on this sheet relates only to the specific material designated herein. **No representations or warranties, whether express or implied, of merchantability, fitness for particular purpose, or any other nature, are made hereunder.** This MSDS is not intended as a recommendation for uses that infringe valid patents or extend licenses under valid patents.

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RECORDS OF REVISION

October 17, 2008 : SPI Address and "Asahi Kasei Chemicals Corporation" instead of Asahi Kasei Corporation.