

SAFETY DATA SHEET**AsahiKASEI****Finished product**

Date Prepared 09/28/2018

SDS No U-6-1

In accordance with OSHA 29 CFR 1910.1200 HCS
 WHMIS 2015
 NBR 14725-4:2014
 NCh 2245:2015
 IRAM 41400-2006
 NOM-018-STPS-2015

ASACLEAN™ U**1. PRODUCT AND COMPANY IDENTIFICATION****PRODUCT NAME:** ASACLEAN™ U**GENERAL USE:** Purging Compound for thermoplastic injection molding machines and extruders.**PRODUCT DESCRIPTION:** Styrenic resin based Purge Compound**PRODUCT CODE:** ASACLEAN™ U**SUPPLIER**

Sun Plastech Inc.
 Asahi Kasei Group
 1055 Parsippany Blvd
 Parsippany, NJ 07054

Customer Service and Product Safety: (973) 257-1999**Manufacturer**

Asahi Kasei Corporation
 Hibiya Mitsui Tower, 1-1-2 Yurakucho, Chiyoda-Ku, Tokyo 100-0006 Japan
 Department in charge: ASACLEAN Business Dept.

24 HR. EMERGENCY TELEPHONE NUMBERS**CHEMTREC (International):** (703) 527-3887**CHEMTREC (US/ Canada):** (800) 424-9300

COMMENTS: Restrictions on Use - Use of this material in the following applications is strictly prohibited: Being implanted into the human body, invasive or non-invasive contact with the human body (including blood, bodily fluids, etc.) continuously for 30 days or more.

2. HAZARDS IDENTIFICATION**Classification of the substance or mixture**

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
 [GHS (Rev. 7) (2017)]

Health: Solid form (pellets) is unlikely to present a health hazard**Environmental:** None**Physical:** Combustible dusts [OSHA: HCS]**GHS Label elements****Pictogram:** No Pictogram**Signal Word:** Warning [OSHA: HCS]**Hazard statements:** May form combustible dust concentrations in air [OSHA: HCS]**Other hazards**

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None expected

3. COMPOSITION / INFORMATION ON INGREDIENTS

The composition of ASACLEAN™ U is considered confidential business information and are therefore withheld from disclosure in accordance with Paragraph (i) of 29 CFR §1910.1200 (OSHA), NBR 14725-4:2014, NCh 2245:2015 and IRAM 41400-2006 and Paragraph E.3(c) of Appendix E of NOM-018-STPS-2015.

Chemical Name	Content %	CAS No.
Styrenic resin	>50%	Not-disclosed
Resin additives	<20%	Not-disclosed
Inorganic additives	<30%	Not-disclosed

4. FIRST AID MEASURES**FIRST AID MEASURES**

EYES: Immediately flush eyes with plenty of water, remove contact lenses at once unless the lenses are stuck to the eyes. Get medical attention if irritation persists.

SKIN: For hot product, immediately immerse in or flush the affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention. No attempt should be made to remove material from skin or to remove contaminated clothing as the flesh can be easily torn.

INGESTION: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel.

INHALATION: If affected by fumes from heated material, remove from source of exposure and move the affected person into fresh air. If breathing is difficult, get medical attention immediately.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Refer to Section 11

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

None Expected.

5. FIRE FIGHTING MEASURES

GENERAL HAZARD: If vapors / fumes are present, wear appropriate NIOSH approved respirator and protective clothing.

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EXTINGUISHING MEDIA: Use water spray, foam, or dry chemical**HAZARDOUS COMBUSTION PRODUCTS:** Hazardous combustion products may include: intense heat, dense black smoke, styrene, ethylbenzene, etc.**EXPLOSION HAZARDS:** Dusts at sufficient concentrations may form explosive mixtures with air.**FIRE FIGHTING EQUIPMENT:** Water spray, water jet or foam is recommended. Dry chemical or carbon dioxide not recommended as they have lower cooling capacity.**FIRE EXPLOSION:** Dust explosions are possible at high concentrations.**SENSITIVITY TO IMPACT:** None Expected.**SPECIAL PROTECTIVE EQUIPMENT:** None Expected.

6. ACCIDENTAL RELEASE MEASURES**SMALL SPILL:** Vacuum or sweep up material and place in a designated, labeled waste container.

Avoid runoff into storm sewers and ditches which lead to waterways.

Dispose of via a licensed waste disposal contractor.

LARGE SPILL: Vacuum or sweep up material and place in designated, labeled waste container.

Dispose of via a licensed waste disposal contractor.

ENVIRONMENTAL PRECAUTIONS**WATER SPILL:** Keep out of water ways and storm sewers.**LAND SPILL:** Vacuum or carefully scoop up spilled material and place in an appropriate container for disposal.**AIR SPILL:** None Expected.**GENERAL PROCEDURES:** Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.

Avoid dispersal of dust in the air.

SPECIAL PROTECTIVE EQUIPMENT: None Expected.

7. HANDLING AND STORAGE**HANDLING:** When handling the pellets in the original container, it is recommended to wear gloves to prevent any irritation. Handle safely to prevent any spills. If handling molten material, avoid directly breathing any gases from the molten purge and wear appropriate gloves. 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. And cool down the purge pile with water. Ensure proper ventilation since resins processed at high temperatures will emit gases. Local ventilation preferably should be provided.

Electrostatic charge may accumulate and create a hazardous condition when handling this material. To

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minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

STORAGE: Keep material in cool dry place. Protect from direct sunlight, rain and violent temperature fluctuation.

STORAGE TEMPERATURE: Ambient conditions when not being used.

LOADING TEMPERATURE: Standard use temperature range is 180-330 °C (355-625 °F). If using material between 330-360 °C (625-680 °F), it is required to have local ventilation or wear a half face NIOSH respirator. Do not use this product over 360 °C (680 °F). Flash Point is 380 °C (715 °F). Turn off heaters or lower temperature to 150 °C (300 °F) or less if ASACLEAN U grade will reside in the barrel for one hour or longer.

STORAGE PRESSURE: Ambient

SHELF LIFE: Recommend to use within 1 year, please consult processing documentation.

SPECIAL SENSITIVITY: None Expected.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS: If dust is generated during handling, use adequate ventilation to keep exposure to airborne dust below the nuisance dust limits listed below.

EXPOSURE LIMITS: Allowable concentration as general dust

Note: Solid form (pellets) is unlikely to present a health hazard. The following exposure limits apply if material is in powder form or if conditions and/or work practices generate dust.

ACGIH TLV (US) TWA: 10mg/m³ for 8 hrs. - Inhalable

TWA: 3mg/m³ for 8 hrs. - Respirable fraction

ENGINEERING CONTROLS: Use standard good ventilation or other engineering controls to minimize inhalation of dusts/vapors

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety glasses for general use.

Wear chemical goggles for cleaning mold machines.

SKIN: Cold or room temp material: None required. However protective clothing is a good industrial practice.

Hot material: Wear heat resistant protective gloves, clothing and face shield that are able to withstand the temperature of the molten product.

RESPIRATORY: To minimize risk to overexposure to dust, vapor, fumes, it is recommended to use local

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exhaust for processing temperatures 180-330 °C (355-625 °F). However if using material between 330-360 °C (625-680 °F), it is required to have local ventilation or half face NIOSH respirator.

Do not use this product over 360 °C (680 °F). NIOSH/OSHO or EN approved respiratory protection is recommended for use when airborne concentrations exceed exposure limits.

PROTECTIVE CLOTHING: Standard industry clothing is recommended.

WORK HYGIENIC PRACTICES: Wash hands after handling, before eating, smoking, using the lavatory, and at the end of the day.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties****APPEARANCE****PHYSICAL STATE:** Solid**SHAPE:** Pellets**COLOR:** Milky white - light yellow**ODOR:** Faint to strong**ODOR THRESHOLD:** Not Available**pH:** NA = Not Applicable**MELTING POINT:** Does not exhibit sharp melting point, but softens at about 130°C (266°F)**FREEZING POINT:** NA = Not Applicable**BOILING POINT:** No data available**FLASH POINT AND METHOD:** 380°C (716°F)**EVAPORATION RATE:** NA = Not Applicable**FLAMMABILITY:** No data available**UPPER/LOWER FLAMMABILITY LIMITS:** No data available**VAPOR PRESSURE:** Not Available**VAPOR DENSITY:** Not Available**FREEZING POINT:** NA = Not Applicable**SPECIFIC GRAVITY:** 1.25 at 23°C (73°F)**SOLUBILITY****WATER:** Insoluble**OTHER SOLVENT:** Soluble in methyl ethyl ketone, cyclohexanone, etc. (except for inorganic content)**PARTITION COEFFICIENT (log Kow):** No data available**AUTOIGNITION TEMPERATURE:** 490°C (914°F)**DECOMPOSITION TEMPERATURE:** No data available**VISCOSITY:** NA = Not Applicable**EXPLOSIVE PROPERTIES:** No data available**OXIDIZING PROPERTIES:** No data available

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Other information:**PARTICLE SIZE:** 3-5 mm**10. STABILITY AND REACTIVITY****REACTIVITY:** Stable and non-reactive under normal handling and storage conditions.**CHEMICAL STABILITY:** The product is stable**POSSIBILITY OF HAZARDOUS REACTIONS:** None Expected.

CONDITIONS TO AVOID: Do not exceed recommended temperature range. In order to avoid autoignition / hazardous decomposition of hot thick masses of plastic, purging should be collected in small, flat shapes to allow rapid cooling in water. Do not allow ASACLEAN U grade to reside in barrel for more than 30 minutes at temperatures higher than 280 °C (535 °F).

INCOMPATIBLE MATERIALS: None Expected.**HAZARDOUS DECOMPOSITION PRODUCTS:** Styrene, ethylbenzene, etc.**11. TOXICOLOGICAL INFORMATION****LIKELY ROUTES OF EXPOSURE:** Skin contact**SIGNS AND SYMPTOMS OF OVEREXPOSURE:****EYES:** Irritation or watering**SKIN:** Contact causes skin irritation.**SKIN ABSORPTION:** NA = Not Applicable**INGESTION:** Upset stomach or nausea**INHALATION:** Irritation of the throat, or coughing**ACUTE TOXICITY****Oral:** Not Classified**Dermal:** Not Classified**Inhalation gases:** Not Classified**Inhalation Vapor:** Not Classified**Inhalation dust / mist:** Not Classified**SKIN CORROSION/IRRITATION:** Not Classified**SERIOUS EYE DAMAGE/IRRITATION:** Not Classified**RESPIRATORY OR SKIN SENSITISATION:** Not Classified**GERM CELL MUTAGENICITY:** Not Classified**CARCINOGENICITY:** Not Classified**REPRODUCTIVE TOXICITY:** Not Classified**SPECIFIC TARGET ORGAN TOXICITY (STOT)-SINGLE EXPOSURE:** Not Classified**STOT-REPEATED EXPOSURE:** Not Classified**ASPIRATION HAZARD:** Not Classified

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ASACLEAN™ U**12. ECOLOGICAL INFORMATION****ECOTOXICITY:** There are no specific data on neither this product nor each ingredient.**PERSISTENCE AND DEGRADABILITY:** No data available**BIOACCUMULATIVE POTENTIAL:** No data available**MOBILITY IN SOIL:** No data available**RESULTS OF PBT and vPvB ASSESSMENT:** No data available**OTHER ADVERSE EFFECTS:** No further data**13. DISPOSAL CONSIDERATIONS****DISPOSAL METHOD:** Avoid contact of spills of materials and runoff with soils and surface waterways. Consult an environmental professional to determine if local, regional, or national regulations would classify spilled or contaminated materials as hazardous waste. Use only approved transporter, recyclers, treatments, storages or disposal facilities.**PRODUCT DISPOSAL:** Dispose according to local laws to an approved waste disposal facility.**EMPTY CONTAINER:** Recycle when possible, or dispose of according to local laws**14. TRANSPORT INFORMATION**

Note: This mixture is not regulated as dangerous goods for transport.

	DOT (DEPARTMENT OF TRANSPORTATION)	IMO/IMDG	ICAO/IATA
UN number	Not classified	Not classified	Not classified
UN proper shipping name	Not classified	Not classified	Not classified
Transport hazard class(es)	Not classified	Not classified	Not classified
Packing group	Not classified	Not classified	Not classified
Environmental hazards	None	None	None
Special precautions for user	None	None	None
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable	Not applicable	Not applicable

15. REGULATORY INFORMATION**USA****OSHA:**

Hazard Communication Rule, 29 CFR, 1910.1200.

TSCA Inventory:

All ingredients are listed or exempt.

EPCRA Section 312/313:

No ingredients are listed above reportable quantities.

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CERCLA Hazardous Substances:	No ingredients are listed above reportable quantities.
Canada	
Health Canada:	WHMIS 2015
Canadian Environmental Protection Act, 1999	
Toxic Substances List:	A residual monomer (< 0.01 %) is listed
Priority Substances List (PSL):	One or more residual monomers (each content < 0.1 %) are listed
Domestic Substances List (DSL)/	
Non-Domestic Substances List (NDSL):	One or more ingredients are listed on either the DSL or NDSL
National Pollutant Release Inventory:	No ingredients are listed above reportable quantities
Brazil	
ABNT:	NBR 14725-4:2014
Chile	
INN:	NCh 2245:2015
List of Dangerous Substances to Health:	One or more residual/hydrogenated monomers (each content < 0.1 %) are listed
Argentina	
IRAM:	IRAM 41400-2006
Mexico	
STPS:	NOM-018-STPS-2015
Ley General de Salud:	
Neither the product (nor any component thereof) is classified as a "Hazardous chemical substance" according to the <i>Ley General de Salud</i> .	

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.

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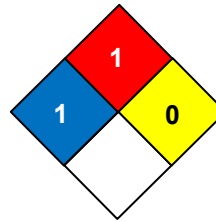
NCh 2245:2015

IRAM 41400-2006

NOM-018-STPS-2015

ASACLEAN™ U**HMIS RATING**

HEALTH		1
FLAMMABILITY		1
PHYSICAL HAZARD		0
PERSONAL PROTECTION		A

NFPA CODES**16. OTHER INFORMATION****REASON FOR ISSUE:** GHS SDS format**PREPARED BY:** ASACLEAN R&D Department, Asahi Kasei Corporation**Date Prepared:** 09/28/2018**REVISION SUMMARY:**

Section 1: PRODUCT AND COMPANY IDENTIFICATION, Section 2: GHS CLASSIFICATION and LABEL, Section 7: LOADING TEMPERATURE, Section 9: AUTOIGNITION TEMPERATURE, FLASH POINT AND METHOD, Section 10: CONDITIONS TO AVOID, Section 15: REGULATORY INFORMATION, Section 16: OTHER INFORMATION.

DATA SOURCES: SDS provided by Suppliers and common industry information

DISCLAIMER: The information in this Safety Data Sheet is based upon data considered to be accurate at the time of its preparation. This information in no way modifies, amends, enlarges or creates any specification or warranty, and all warranties, expressed or implied, including without limitation the warranties of merchantability and fitness for a particular purpose, are hereby excluded. This information is a recommendation for safe handling, use, processing, storage, transportation, disposal, and release, and Sun Plastech Inc. shall not be responsible for any damage or injury resulting from abnormal use, from any failure to follow appropriate practices, or from hazards inherent in the nature of the product/material. This information relates only to the specific product /material designated and may not be valid for such product/material used in combination with any other product/material or in any process, unless otherwise specified.