

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: ASACLEAN® UB, UF, UP, UX, SX, newUP, CP
General Use: Purging Compound for plastic injection molding machine and extruder
Product Description: Blend of additives in olefinic resin
MSDS Number: ASIA-O.-005

MANUFACTURER

Company Name: Asahi Kasei Chemicals Corporation
Address: Asaclean Sales & Marketing Department
1-105 Kanda Jinbocho, Chiyoda-ku, Tokyo 101-8101, Japan
Telephone No.: +81-3-3296-3274

EMERGENCY TELEPHONE NUMBER

Asahi Kasei Chemicals Corporation
Telephone No.: +81-44-271-2503 (Asaclean Technology Group)

2. COMPOSITION/INFORMATION ON INGREDIENTS

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

Composition: *1; Refer to table 1 on Page 5 of 5
Cas No.: Registered as each composition

3. HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW:**

Pellets with slight or no odor. Spilled pellets create slipping hazard. Product may be flammable when exposed to constant flame or heat. When product burns, creates dense toxic vapors, gases or fumes. 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:

INHALATION: Product inhalation is unlikely due to physical form.

EYES: Product may cause irritation or injury due to mechanical action.

SKIN: Product not likely to cause skin irritation.

INGESTION: Not acutely toxic

POTENTIAL ENVIRONMENTAL EFFECTS:

CHRONIC TOXICITY / CARCINOGENICITY

NTP: Not Tested

OSHA: Not Regulated

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

4. FIRST AID MEASURES

INHALATION: Pellets not likely to be inhaled due to physical form. When gas and/or fumes generated from the molten plastics is inhaled, remove the victim from the area to fresh air. For processing fume inhalation irritation, leave contaminated area and breathe fresh air. Seek immediately medical attention.

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: Wash affected area thoroughly with water. For molten plastic skin contact or skin contact with fume condensate, immediately wash thoroughly with soap and water. If

MATERIAL SAFETY DATA SHEET

irritation develops, seek medical attention.

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

PROTECTION TO FIRST-AIDERS

Molten or hot plastic: Wear long pants, long sleeves, well insulated and impervious gloves and face shield.

Inhalation: Use appropriate respirator for protection from organic vapors and acid gases.

5. FIRE FIGHTING MEASURES**FLAMMABLE PROPERTIES:**

FLASH POINT: Not applicable

LOWER FLAMMABLE LIMIT: Not applicable

UPPER FLAMMABLE LIMIT: Not applicable

EXPLOSION DATA

IMPACT SENSITIVITY: Not sensitive to mechanical impact

STATIC DISCHARGE: See 7. HANDLING AND STORAGE

EXTINGUISHING MEDIA:

Water spray and foam. Water and water-jet are the best extinguishing media. Carbon dioxide and dry chemical may permit re-ignition because of their lack of cooling capacity.

FIRE FIGHTING INSTRUCTIONS:

Hazardous combustion products may include intense heat, dense black smoke, carbon monoxide, carbon dioxide, acrolein and formaldehyde. Approved pressure demand breathing apparatus and protective clothing should be used for all fires.

6. ACCIDENTAL RELEASE MEASURES

LAND SPILL& WATER SPILL: Product is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. To prevent the danger of slips or falls, sweep or gather up product and place in proper container for disposal or recovery.

7. HANDLING AND STORAGE

HANDLING: Should process this material under the recommended temperature range (*2; Refer to Table 1 on Page 5 of 5) specified in "ASACLEAN® Technical Information". Avoid long retention at the temperature over 300°C (in case of UX, SX=370°C) 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 flame. Avoid direct sunlight. Keep material away from electrostatic charge.

NOTE: Product has been designed and tested for purging and cleaning of injection molding machines and extruders, and no other use nor application is recommended.

MATERIAL SAFETY DATA SHEET

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**EXPOSURE LIMIT VALUES:** Not established**EXPOSURE CONTROLS**

Occupational Exposure Controls

- Engineering Controls: In cases where possibilities of dust formation, gas generation, or vapor emission exist, provide local ventilation.
- Personal Protection: When processing fumes are not adequately controlled, use appropriate respirator for protection from organic vapors and acid gases. When dust or powder from secondary operations, (such a grinding, sanding, or sawing) is not adequately controlled, use appropriate respirator for protection from dust.
- Respiratory Protection:
- Hand Protection: During melt processing, well insulated and impervious gloves.
- Eye Protection: Wear safety glasses or chemical goggles while using or handling product. In addition, use full-face shield when cleaning processing fume condensates.
- Skin Protection: During melt processing, wear long pants, long sleeves, well insulated and impervious gloves and face shield.

Environmental Exposure Controls

Particulates not otherwise classified

OSHA PEL: 15 mg/m³ (Total dust), 5 mg/m³ (Respirable fraction)ACGIH TLV-TWA (2001): 10 mg/m³ (Inhalable particulate), 3mg/m³ (Respirable particulate)

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Solid and light yellow
- Odor: Slight or no odor
- pH: Not Applicable
- Melting Point/Melting Range: 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).
- Decomposition Temperature: *3;Refer to Table 1 on Page 5 of 5.
- Auto Ignition Temperature: *4;Refer to Table 1 on Page 5 of 5.
- Flammability: See **3. HAZARDS IDENTIFICATION (EMERGENCY OVERVIEW)**.
- Explosive Properties:
- Specific Gravity: *5;Refer to Table 1 on Page 5 of 5.
- Solubility: Water; Insoluble, Solvent; Insoluble

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: In order to avoid auto-ignition / 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.

STABILITY: Stable under recommended conditions of storage.

MATERIALS TO AVOID: None

HAZARDOUS REACTIONS/DECOMPOSITION PRODUCTS:

May include and not limited to: carbon monoxide, carbon dioxide, acrolein and formaldehyde.

MATERIAL SAFETY DATA SHEET**11. TOXICOLOGICAL INFORMATION**

Acute Toxicity:	Rats, which were fed 7.95g/kg, showed no toxic reactions and gained weight normally (olefinic resin). The toxicological properties of this substance have not been thoroughly investigated.
Eye Irritation:	Product is not considered primary eye irritant.
Skin Irritation:	Product is not considered primary skin irritant.
Sensitization:	Not Available
Mutagenicity:	Not Available
Carcinogenicity:	Classified in Group 3 of IARC as olefinic resin (not classifiable as to its carcinogenicity to humans).

12. ECOLOGICAL INFORMATION

ECOTOXICITY:	Not expected to be acutely toxic, but pellets, if ingested by waterfowl or aquatic life, may mechanically cause adverse effects.
PERSISTENCE AND BIODEGRADABILITY:	Not Available
BIOACCUMULATIVE POTENTIAL:	Not Available

13. DISPOSAL CONSIDERATIONS

Comply with all national and local regulations.

Do not dump this product into sewers, on the ground or into any body of water.

14. TRANSPORT INFORMATION

Comply with all national and local regulations.

LAND TRANSPORT:

ADR, RID

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

Comply with all national and local regulations.

16. OTHER INFORMATION

This information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of Asahi Kasei Chemicals 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 Chemicals Corporation assumes no legal responsibility for use of or reliance upon this information.

MATERIAL SAFETY DATA SHEET

Page : 5 of 5
First issue : Feb. 10, 2005
Revised : Jun. 9, 2008
Product Name : ASACLEAN®
MSDS No. : ASIA-O.-005

(Table 1)

Type	Composition *1		Recommended temp. range *2	Decomposition Temp. *3	Auto-ignition temp. *4	Specific Gravity *5
UB	Olefinic resin	85%wt	170°C~320°C	345°C	370°C	0.99
	Additives	15%wt				
UF	Olefinic resin	98%	170°C~320°C	350°C	390°C	0.96
	Additives	2%				
UP	Olefinic resin	70%wt	170°C~300°C	325°C	370°C	1.05
	Additives	30%wt				
UX	Olefinic resin	88%wt	300°C~390°C	370°C	431°C	1.04
	Additives	12%wt				
SX	Olefinic resin	100%wt	300°C~390°C	370°C	458°C	0.96
newUP	Olefinic resin	85%wt	170°C~300°C	325°C	370°C	0.92
	Additives	15%wt				
CP	Olefinic resin	50%wt	170°C~300°C	325°C	370°C	1.35
	Additives	50%wt				

RECORDS OF REVISION

Feb. 10, 2005: Overall revised and added new grade "UB"

Sep. 1, 2006: Added new grade "UF"

Jun. 25, 2007: Added new grade "newUP"

Aug. 28, 2007: Added new grade "CP"

Jun. 9, 2008: Changed manufacturer's address