



A Milacron Company

Dear Customer:

Enclosed is the **REVISED** Material Safety Data Sheet for our product:

D-M-E PLASTIC BAFFLES

The products we distribute are not normally hazardous in their natural state. However, steel does contain elements deemed by OSHA to be hazardous when released by manufacturing, such as brazing, burning, grinding, sawing or welding, etc. Failure to control dust and fumes can result in chronic health problems.

We believe the information, supplied by the Manufacturer, on the enclosed MSDS to be accurate; however, D-M-E makes no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assumes no liability for the information so presented.

Should you require additional information, please call or write the Manufacturer listed on the MSDS.

Sincerely yours,

D-M-E Company
Director of Operations
Ken Jasina

July 2009

SAFETY DATA SHEET

North American Version

AMODEL® AS-19XX

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Identification of the substance/preparation

Product name : AMODEL® AS-19XX
Product grade(s) : Amodel® AS-1933 HS BK 324
Amodel® AS-1945 HS BK 324
Amodel® AS-1945 HS NT

1.2. Use of the Substance/Preparation

Recommended use : - For further information, please contact: Supplier

1.3. Company/Undertaking Identification

Address : SOLVAY ADVANCED POLYMERS, LLC
McGINNIS FERRY ROAD 4500
USA- 30005-3914 ALPHARETTA

1.4. Emergency telephone number

Telephone : 1 (800) 621-4590 [Health Information]
1 (800) 424-9300 CHEMTREC (USA)
1 (800) 621-4557 [Other Product Information]
1 (770) 772-8880

2. HAZARDS IDENTIFICATION

2.1. Emergency Overview:

General Information

Appearance : pellets, powder

Colour : black
amber

Odour : odourless

Main effects

- Hazardous decomposition products formed under fire conditions.
- Product dust may be irritating to eyes, skin and respiratory system.

2.2. Potential Health Effects:

Inhalation

- Mechanical irritation from the particulates generated by the product.
- In case of repeated or prolonged exposure: risk of bronchitis (fiber glass).
- Thermal decomposition can lead to release of hazardous gases and vapors

Eye contact

- Mechanical irritation from the particulates generated by the product.

Skin contact

- Mechanical irritation from the particulates generated by the product.



- Risk of itching of the skin/dermatitis (fiber glass).

Ingestion

- Low ingestion hazard.

Other toxicity effects

- See section 11: Toxicological Information

2.3. Environmental Effects:

- See section 12: Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Polyphthalamide		
CAS-No.	:	-
Concentration	:	>= 50.00 - <= 70.00 %
Block polymer		
CAS-No.	:	-
Concentration	:	>= 2.00 - <= 7.00 %
Fiberglass		
CAS-No.	:	65997-17-3
Concentration	:	>= 33.00 - <= 45.00 %
Carbon black		
CAS-No.	:	1333-86-4
Concentration	:	>= 0.00 - <= 1.00 %

4. FIRST AID MEASURES

4.1. Inhalation

- Remove to fresh air.
- If symptoms persist, call a physician.

4.2. Eye contact

- Flush eyes with running water for several minutes, while keeping the eyelids wide open.
- If eye irritation persists, consult a specialist.

4.3. Skin contact

- Wash off with soap and water.
- Wash contaminated clothing before re-use.
- If symptoms persist, call a physician.
- Cool skin rapidly with cold water after contact with hot polymer.
- Do not peel polymer from the skin.
- Obtain medical attention.

4.4. Ingestion

The following actions are recommended :

- If large quantities of this material are swallowed, call a physician immediately.
- Never give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURES

5.1. Suitable extinguishing media

- powder
- foam
- water
- water spray



- carbon dioxide (CO₂)
- 5.2. Extinguishing media which must not be used for safety reasons**
 - None.
- 5.3. Special exposure hazards in a fire**
 - combustible material
 - In a fire, the polymer melts, producing droplets which may propagate fire.
 - Once started, a fire will tend to self extinguish (see section 9).
 - Risk of dust explosion.
 - Heating can release hazardous gases.
- 5.4. Special protective equipment for fire-fighters**
 - In the event of fire, wear self-contained breathing apparatus.
 - Fire fighters must wear fire resistant personnel protective equipment.
- 5.5. Other information**
 - Avoid dust formation.

6. ACCIDENTAL RELEASE MEASURES

- 6.1. Personal precautions**
 - Sweep up to prevent slipping hazard.
 - Avoid dust formation.
 - Refer to protective measures listed in sections 7 and 8.
- 6.2. Environmental precautions**
 - Should not be released into the environment.
 - The product should not be allowed to enter drains, water courses or the soil.
 - In case of accidental release or spill, immediately notify the appropriate authorities if required by Federal, State/Provincial and local laws and regulations.
- 6.3. Methods for cleaning up**
 - Sweep up and shovel into suitable containers for disposal.
 - Avoid dust formation.
 - Keep in properly labelled containers.
 - Keep in suitable, closed containers for disposal.
 - Treat recovered material as described in the section "Disposal considerations".

7. HANDLING AND STORAGE

- 7.1. Handling**
 - Take measures to prevent the build up of electrostatic charge.
 - Ensure all equipment is electrically grounded before beginning transfer operations.
 - Use only equipment and materials which are compatible with the product.
 - To avoid thermal decomposition, do not overheat.
 - Avoid prolonged or repeated contact with skin.
- 7.2. Storage**
 - Keep container closed.
 - Keep away from heat and sources of ignition.
- 7.3. Other information**
 - Keep away from open flames, hot surfaces and sources of ignition.
 - To avoid thermal decomposition, do not overheat.
 - Avoid dust formation.
 - Refer to protective measures listed in sections 7 and 8.
 - Do not smoke.



8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Exposure Limit Values

Polyphthalamide

- PEL (OSHA / USA)
= 15 mg/m³
Remarks: Particulates not otherwise regulated total dust
- PEL (OSHA / USA)
= 5 mg/m³
Remarks: Particulates not otherwise regulated respirable fraction
- US. ACGIH Threshold Limit Values
= 10 mg/m³
Remarks: Inhalable PNOC (Particulates Not Otherwise Classified)
- US. ACGIH Threshold Limit Values
= 3 mg/m³
Remarks: Respirable PNOC (Particulates Not Otherwise Classified)

Fiberglass

- US. ACGIH Threshold Limit Values 2004
TWA = 5 mg/m³

Carbon black

- PEL (OSHA / USA) 06/1993
TWA = 3.5 mg/m³
- US. ACGIH Threshold Limit Values 2004
TWA = 3.5 mg/m³

8.2. Engineering controls

- Provide local ventilation appropriate to the product decomposition risk (see section 10).
- Provide appropriate exhaust ventilation at places where dust is formed.
- Refer to protective measures listed in sections 7 and 8.

8.3. Personal protective equipment

8.3.1. Respiratory protection

- In case of insufficient ventilation wear suitable respiratory equipment.
- When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Use only respiratory protection that conforms to international/ national standards.
- Use NIOSH approved respiratory protection.
- Respirator with combination filter for vapour/particulate.

8.3.2. Hand protection

- For prolonged or repeated contact use protective gloves.
- When handling hot material, use heat resistant gloves.

8.3.3. Eye protection

- safety glasses with side-shields
- Dust proof goggles, if dusty.

8.3.4. Skin and body protection

- long sleeved clothing

8.3.5. Hygiene measures

- When using, do not eat, drink or smoke.
- Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General Information



Appearance : pellets, powder
Colour : black
amber

Odour : odourless

9.2. Important Health Safety and Environmental Information

pH : *Remarks: not applicable*
Boiling point/range : *Remarks: not applicable*
Flash point : *Remarks: not applicable*
Flammability (solid, gas) : Upper explosion limit:
Remarks: no data available
Lower explosion limit:
Remarks: no data available
Explosive properties : *Remarks: Risk of dust explosion.*
Vapour pressure : *Remarks: not applicable*
Relative density : Specific gravity:
Remarks: no data available
Solubility : water
Remarks: negligible
Partition coefficient (n-octanol/water) : *Remarks: not applicable*

9.3. Other data

: 316 °C
Remarks: Softening point
: 600 °F
Remarks: Softening point
Decomposition temperature : 420 °C
Remarks: Extended period of exposure (ca. 1 hour).
: 788 °F
Remarks: Extended period of exposure (ca. 1 hour).

10. STABILITY AND REACTIVITY

10.1. Stability

- Stable under normal conditions.
- Hazardous Polymerisation/Polymerization: no

10.2. Conditions to avoid

- Heat, flames and sparks.
- To avoid thermal decomposition, do not overheat.
- Avoid dust formation.
- Avoid accumulations of molten masses of Amodel in excess of 50 lbs (22.5 kilograms), which may result in excessive pressure buildup from thermal degradation of the product.



10.3. Materials to avoid

- If polyacetal and polyoxymethylene resin is molded or handled in your equipment, this material can rapidly decompose at the temperatures used to process this resin. Inadvertent contamination of this resin with polyacetal resin from the material handling system of other equipment can result in a rapid, possibly violent, release of decomposition fumes when the contaminated material is brought to molding temperature. To avoid, thoroughly clean molding equipment with purging compound prior to product changeover and prevent cross contamination of material handling systems.

10.4. Hazardous decomposition products

- Carbon monoxide, Ammonia, aldehydes, nitriles, carbon dioxide (CO₂), The release of other hazardous decomposition products is possible.

11. TOXICOLOGICAL INFORMATION

Toxicological data

Remarks

- The product is biologically inert.
- Because the components are encapsulated in the resin and may not be bioavailable in the body, they may not exert the above mentioned health effects.
- Product dust may be irritating to eyes, skin and respiratory system.
- Description of possible hazardous to health effects is based on experience and/or toxicological characteristics of several components.
- This product may contain carbon black. Carbon black has been shown to cause lung tumors in rats at high exposure concentrations. These concentrations exceed the capacity of the lung to clear the carbon black particles, thus resulting in significant toxicity. The International Agency for Research on Cancer (IARC) has evaluated carbon black found it to be possibly carcinogenic to humans. (Group 2B).

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity effects

12.2. Mobility

- Result: no data available

12.3. Persistence and degradability

Abiotic degradation

- Result: no data available

Biodegradation

- Result: no data available

12.4. Bioaccumulative potential

- Result: no data available

12.5. Other adverse effects

- no data available

12.6. Remarks

- The product is biologically inert.
- Ingestion of solids may cause harm to wildlife due to intestinal mechanical blockage or starvation from false feeling of satiation.



13. DISPOSAL CONSIDERATIONS

13.1. Waste from residues / unused products

- Do not dump into any sewers, on the ground, or into any body of water. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations.
- Waste characterizations and compliance with applicable laws and regulations are the responsibility of the waste generator.

13.2. Packaging treatment

- Empty containers.
- Dispose of as unused product.
- For unused and uncontaminated product, the preferred options include sending to a licensed, permitted: recycler, reclaimer, incinerator or other thermal destruction device or industrial landfill.

13.3. RCRA US Regulation

- Listed RCRA Hazardous Waste - No

14. TRANSPORT INFORMATION

- Sea (IMO/IMDG)
 - not regulated
- Air (ICAO/IATA)
 - not regulated
- European Road/Rail (ADR/RID)
 - not regulated
- U.S. Dept of Transportation
 - not regulated
- Canadian Transportation of Dangerous Goods
 - not regulated

15. REGULATORY INFORMATION

15.1. Inventory Information

- TSCA :** - In compliance with inventory.
- EINECS :** - In compliance with inventory.
- ENCS :** - Listed on inventory.
- AICS :** - One or more components not listed on inventory.
- ECL :** - Listed on inventory.
- DSL :** - One or more components not listed on inventory.
- PICCS :** - One or more components not listed on inventory.
- IECS :** - Listed on inventory.



15.2. Other regulations

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

- not regulated.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

- not regulated.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

- not regulated.

US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

Components	CAS-No.	Concentration
Carbon black	1333-86-4	>= 0.00 - <= 1.00 %

US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

Components	CAS-No.	Concentration
Carbon black	1333-86-4	>= 0.00 - <= 1.00 %

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product contains a chemical known in the State of California to cause cancer and/or to cause birth defects or other reproductive harm. :

Components	CAS-No.	Concentration
Carbon black	1333-86-4	>= 0.00 - <= 1.00 %

16. OTHER INFORMATION

Administrative information

- General revision
- Supersedes version dated: 04/27/1998

Material Safety Data Sheets contain country specific regulatory information; therefore, the MSDS's provided are for use only by customers of Solvay Advanced Polymers, L.L.C. in North America. If you are located in a country other than Canada, Mexico or the United States, please contact the Solvay Group company in your country for MSDS information applicable to your location. The previous information is based upon our current knowledge and experience of our product and is not exhaustive. It applies to the product as defined by the specifications. In case of combinations or mixtures, one must confirm that no new hazards are likely to exist. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and integrity of the work environment. (Unless noted to the contrary, the technical information applies only to pure product). To our actual knowledge, the information contained herein is accurate as of the date of this document. However, neither Solvay Advanced Polymers, L.L.C. nor any of its affiliates makes any warranty, express or implied, or accepts any liability in connection with this information or its use. This information is for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. This is not a license under any patent or other proprietary right. The user alone must finally determine suitability of any information or material for any contemplated use, the manner of use and whether any patents are infringed. This information gives typical properties only and is not to be used for specification purposes. Solvay Advanced Polymers, L.L.C. reserves the right to make additions, deletions or modifications to the information at any time without prior notification. Trademarks and/or other Solvay Advanced Polymers, L.L.C. products referenced herein are either trademarks or registered trademarks of Solvay Advanced Polymers, L.L.C. or its affiliates, unless otherwise indicated.



