

<b>Product name</b>	Amcel		NAGH/EN
<b>MSDS number</b>	870610132	<b>Revision Date</b>	Oct.19.2015
<b>Revision Number</b>	0.01	<b>Issuing date</b>	Oct.19.2015

## 1. Product and company identification

Trade Name

### Amcel

The following SDS applies to products described by combinations of the following trade name, product grade and color code listed below.

**Color Code:**

See Section 16 for list of Color Codes

**Ticona Polymer, Inc.**

**A business of Celanese**

8040 Dixie Hwy.  
 Florence, KY 41042  
 United States  
 www.celanese.com

**Transportation emergency phone numbers:**

In USA, call 800 424 9300  
 Outside USA, call 703 527 3887, collect calls accepted.

**Product Information**

1-800-833-4882  
 info-engineeredmaterials-am@celanese.com

**Synonyms:**

Acetal copolymer Polyoxymethylene copolymer

**Identified uses**

Plastic processing industry.

## 2. Hazard Identification

**According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200:**

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard (29CFR 1910.1200)

## 3. Composition/information on ingredients

**Chemical characterization** Polyacetal Copolymer / POM; CAS-RN of the basic polymer: 24969-26-4

Components	CAS-No	Percent %
Carbon black	1333-86-4	1-5
Formaldehyde	50-00-0	Trace level contaminant

---

<b>Product name</b>	Amcel		NAGH/EN
<b>MSDS number</b>	870610132	<b>Revision Date</b>	Oct.19.2015
<b>Revision Number</b>	0.01	<b>Issuing date</b>	Oct.19.2015

---

**Remarks**

This product may contain proprietary ingredients.

This is a polymeric material. Any hazardous constituents are wetted by the polymer system, and therefore are unlikely to present exposure under normal conditions of processing and handling.

**4. First aid measures****Skin**

Cool skin rapidly with cold water after contact with molten polymer. Immediate medical attention is required. Do not peel solidified product off the skin.

**Eyes**

Immediately flush eye(s) with plenty of water. Call a physician if irritation persists.

**Inhalation**

Move to fresh air in case of accidental inhalation of vapors. Get medical attention immediately if symptoms occur.

**Ingestion**

If swallowed, do not induce vomiting - seek medical advice.

**Notes to physician**

This product is essentially inert and nontoxic. However, if it is overheated or burns, gases such as carbon monoxide and formaldehyde may be released. Those exposed to off-gases may need to have their arterial blood gases and carboxyhemoglobin levels checked. If the carboxyhemoglobin levels are normal and the exposure occurred in an enclosed space, asphyxia (carbon dioxide replacing oxygen) is a possibility. Formaldehyde is a respiratory irritant gas. If patients may have inhaled high concentrations of irritating fumes they should be monitored for delayed onset pulmonary edema.

**5. Fire-fighting measures**

**NFPA:**      **Health:** 1

**Flammability:** 1

**Instability:** 0

**Suitable extinguishing media**

Water, Foam, Dry powder, Gaseous extinguishing media, Dry chemical

**Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases**

Hazardous combustion products

Carbon monoxide

Carbon dioxide (CO<sub>2</sub>)

Formaldehyde vapours

**Special protective equipment for fire-fighters**

Wear self-contained breathing apparatus and protective suit.

**Other Information**

Potential dust explosion hazard.

**6. Accidental release measures**

<b>Product name</b>	Amcel		NAGH/EN
<b>MSDS number</b>	870610132	<b>Revision Date</b>	Oct.19.2015
<b>Revision Number</b>	0.01	<b>Issuing date</b>	Oct.19.2015

**Personal precautions**

Keep away from heat and sources of ignition. Avoid dust formation. Use adequate ventilation.

**Environmental precautions**

No special precautions required.

**Methods for cleaning up**

Use mechanical handling equipment. Dispose of in accordance with local regulations.

**7. Handling and storage**

**Advice on safe handling**

Do not handle hot or molten material without appropriate protective equipment. Do not exceed recommended process temperatures to minimize release of decomposition products. Provide for appropriate exhaust ventilation and dust collection at machinery. Maintain good housekeeping in work areas..

**Protection - fire and explosion:**

Do not smoke in areas where polymer dust is present.. Appropriate measures should be taken to control the generation and accumulation of dust during conveying and processing operations..

**Material storage**

Keep in a dry, cool place. Maintain dryness of resin.. To maintain product quality, do not store in heat or direct sunlight. Maximum storage temperature 40°C.

**Incompatible products**

strong acids, oxidizing agents, Polyvinyl chloride

**8. Exposure controls / personal protection**

**OSHA Exposure Limits**

Components	TWA
Carbon black	3.5 mg/m <sup>3</sup>
Formaldehyde	0.75 PPM

Components	STEL
Formaldehyde	2 PPM

**ACGIH Exposure Limits**

Components	TWA
Carbon black	3.5 mg/m <sup>3</sup>

Components	Ceiling Limit Value:
Formaldehyde	0.3 PPM

Components	Celanese Workplace Exposure Limit
Formaldehyde	0.75 ppm (TWA); 2 ppm (STEL)

<b>Product name</b>	Amcel		NAGH/EN
<b>MSDS number</b>	870610132	<b>Revision Date</b>	Oct.19.2015
<b>Revision Number</b>	0.01	<b>Issuing date</b>	Oct.19.2015

Components	2005 NIOSH IDLH
Formaldehyde	20 ppm

**Mexico National Exposure Limits**

Components	LMPE - PPT
Carbon black	3.5 mg/m <sup>3</sup>

Components	STEL
Carbon black	7 mg/m <sup>3</sup>

Components	Mexican Carcinogen Category
Carbon black	A4
Formaldehyde	A2

Components	Mexican Ceiling Exposure Limit
Formaldehyde	3 mg/m <sup>3</sup> 2 PPM

**Exposure controls**

**Engineering measures**

General: May not be adequate as the sole means to control employee exposure.  
 Local Exhaust: Recommended when appropriate to control employee exposure to dust or process vapors.

**Protective equipment**

A safety shower and eyebath should be readily available.

**General advice**

Do not breathe dust. Avoid contact with skin and eyes.

**Respiratory protection**

In case of insufficient ventilation wear suitable respiratory equipment

**Skin protection:**

When thermal or melt processing, wear long pants, long sleeves, well insulated gloves, and face shield when there is a chance of contact..

**Eye/face protection:**

safety glasses with side-shields. Safety goggles.

**9. Physical and chemical properties**

**Appearance**

<b>Form</b>	pellets
<b>Odor</b>	slight specific

<b>Product name</b>	Amcel		NAGH/EN
<b>MSDS number</b>	870610132	<b>Revision Date</b>	Oct.19.2015
<b>Revision Number</b>	0.01	<b>Issuing date</b>	Oct.19.2015

## 9. Physical and chemical properties

<b>Flash point</b>	>93°C(>200°F)
<b>Ignition temperature</b>	320°C (608°F)
<b>Method</b>	ASTM D 1929
<b>Density</b>	approx 1.4 - 1.8 g/ml @ 20°C
<b>Bulk density</b>	approx 770 - 890 kg/m <sup>3</sup> @20 °C
<b>Vapor pressure</b>	not determined
<b>Water solubility</b>	insoluble

## 10. Stability and reactivity

### Chemical stability

Stable under normal conditions

### Conditions to avoid

Flame. Do not allow mixing of this material with PVC, other halogen containing materials, and partially and/or fully crosslinkable thermoplastic elastomers. Avoid temperatures above 238 °C / 460 °F.

### Incompatible Materials

strong acids  
oxidizing agents  
Polyvinyl chloride

### Hazardous Combustion or Decomposition Products:

Trioxane, formaldehyde, paraformaldehyde, formic acid,

### Possibility of hazardous reactions

Polyvinyl chloride, Incompatible with strong acids and oxidizing agents.

## 11. Toxicological information

### Potential health effects

**Routes of exposure** Skin, eyes, inhalation, ingestion.

### Immediate effects

<b>Skin</b>	Polymer particles may cause mechanical irritation. The molten product can cause serious burns.
<b>Eyes</b>	Resin particles, like other inert materials, are mechanically irritating to eyes
<b>Inhalation</b>	Overheating in processing may generate hazardous, irritating vapours. Dust irritating to respiratory tract.
<b>Ingestion</b>	Low toxicity by this route is expected based on the biological activity of high molecular weight polymers.

<b>Product name</b>	Amcel		NAGH/EN
<b>MSDS number</b>	870610132	<b>Revision Date</b>	Oct.19.2015
<b>Revision Number</b>	0.01	<b>Issuing date</b>	Oct.19.2015

**Other:** Formaldehyde, which is a degradation product, is listed as a potential cancer hazard by OSHA, a known human carcinogen by The International Agency for Research on Cancer (IARC, Group 1), and is listed in the 12th Report on Carcinogens (RoC) released by The National Toxicology Program (NTP). Formaldehyde should not pose a risk if exposures are kept below the OSHA Permissible Exposure Limit. Carbon Black is listed by IARC as possibly carcinogenic to humans (Group 2B) based on inadequate evidence of carcinogenicity in humans and sufficient evidence in experimental animals.

**Medical conditions which may be aggravated by exposure:** No specific information available on the product. Off-gases, which may be released if overheated, may affect those with chronic diseases of the respiratory system.

Toxicological data are not available. Observe the usual hygienic measures for handling chemicals.

## 12. Ecological Information

**Ecotoxicity:**The effects of resin pellets on the wildlife that may ingest them is not well understood. In the case of seabirds, some marine biologists believe that the fowl may not be able to pass plastic pellets through their digestive tracts. Thus, large quantities of ingested pellets may cause intestinal blockage, false feelings of satiation or reduction in absorption of nutrients, causing malnutrition and starvation. The goal of SPI's Operation Clean Sweep is zero loss of pellets into the environment..

**Environmental Fate/Information:**This material is considered to be non-biodegradable..

## 13. Disposal considerations

### Disposal considerations

Recycling is encouraged. Dispose of spilled material in accordance with state and local regulations for waste that is non-hazardous by Federal definition. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.

This product as shipped is not a RCRA hazardous waste under present EPA regulations

## 14. Transport information

**US Department of Transportation** Not regulated

**TDG** Not regulated

**Mexico Transport Information** Not regulated

**ICAO/IATA** Not restricted

**IMDG** Not regulated

<b>Product name</b>	Amcel		NAGH/EN
<b>MSDS number</b>	870610132	<b>Revision Date</b>	Oct.19.2015
<b>Revision Number</b>	0.01	<b>Issuing date</b>	Oct.19.2015

## 15. Regulatory Information

### US State Regulations

none

### U.S. FEDERAL REGULATIONS

#### **TSCA Inventory:**

This product complies with the U.S. Toxic Substances Control Act (TSCA).

#### **Environmental Regulations:**

#### **SARA 313 Chemicals**

Contains no substances at or above the reporting threshold under Section 313.

#### **SARA 311:**

<b>Acute health:</b>	No
<b>Chronic health:</b>	No
<b>Fire:</b>	No
<b>Sudden release of pressure:</b>	No
<b>Reactive:</b>	No

### INTERNATIONAL REGULATIONS

#### CANADIAN REGULATIONS

**WHMIS Classification:** Not a WHMIS controlled product.

#### **WHMIS Ingredient Disclosure List IDL:**

Carbon Black (1333-86-4)

## 16. Other information

NFPA:	Health: 1	Flammability: 1	Instability: 0
HMIS:	Health: 1	Flammability: 1	Physical Hazard: 0

#### **Prepared By**

Product Stewardship Department  
Celanese

#### **Sources of key data used to compile the datasheet**

Information contained in this safety data sheet is based on Celanese owned data and public sources deemed valid or acceptable..

#### **Other Information:**

Observe national and local legal requirements

Except as otherwise noted, all of the trademarks referenced herein are owned by Ticona or its affiliates.

Changes against the previous version are marked by \*\*\*

---

<b>Product name</b>	Amcel		NAGH/EN
<b>MSDS number</b>	870610132	<b>Revision Date</b>	Oct.19.2015
<b>Revision Number</b>	0.01	<b>Issuing date</b>	Oct.19.2015

---

This product is not intended for use in medical or dental implants.

The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. Celanese makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. Effects can be aggravated by other materials and/or this material may aggravate or add to the effects of other materials. User has sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards.

**Abbreviation and Acronym:**

IMDG = International Maritime Code for Dangerous Goods

ICAO = International Civil Aviation Organization

IBC Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IMO)

IATA = International Air Transport Association

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

EINECS = European Inventory of Existing Commercial Chemical Substances

DNEL = Derived No Effect Level

CLP = Classification, Labelling and Packaging

CAS = Chemical Abstracts Service (division of the American Chemical Society)

ADR = Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)