

Product name	Duracon®		NAGH/EN
MSDS number	870610162	Revision Date	Oct.13.2015
Revision Number	0	Issuing date	Oct.13.2015

1. Product and company identification

Trade Name

Duracon®

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

Product Grade(s):

CP15X/G21CP

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 %
Formaldehyde	50-00-0	Trace level contaminant

Product name	Duracon®		NAGH/EN
MSDS number	870610162	Revision Date	Oct.13.2015
Revision Number	0	Issuing date	Oct.13.2015

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, Dry chemical, Solid extinguishing agent

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

Hazardous combustion products

Carbon monoxide

Carbon dioxide (CO₂)

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

Product name Duracon®
MSDS number 870610162
Revision Number 0

Revision Date
Issuing date

NAGH/EN
Oct.13.2015
Oct.13.2015

Personal precautions

Remove all sources of ignition. Avoid dust formation.

Environmental precautions

No special environmental 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
Formaldehyde	0.75 PPM

Components	STEL
Formaldehyde	2 PPM

ACGIH Exposure Limits

Components	Ceiling Limit Value:
Formaldehyde	0.3 PPM

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

Components	2005 NIOSH IDLH
Formaldehyde	20 ppm

Product name	Duracon®		NAGH/EN
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Mexico National Exposure Limits

Components	Mexican Carcinogen Category
Formaldehyde	A2

Components	Mexican Ceiling Exposure Limit
Formaldehyde	3 mg/m ³ 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..

Eyel/face protection:

safety glasses with side-shields. Safety goggles.

9. Physical and chemical properties

Appearance

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

10. Stability and reactivity

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Revision Number	0	Issuing date	Oct.13.2015

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

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

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. When handled appropriately, even after long years of experience with this product, no adverse health effects are known.

12. Ecological Information

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MSDS number	870610162	Revision Date	Oct.13.2015
Revision Number	0	Issuing date	Oct.13.2015

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

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

Antimony Compounds (1-60 wt%)

Chromium Compounds (not hexavalent) (1-30 wt%)

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SARA 311:

Acute health:	No
Chronic health:	No
Fire:	No
Sudden release of pressure:	No
Reactive:	No

INTERNATIONAL REGULATIONS

CANADIAN REGULATIONS

WHMIS Classification: Not a WHMIS controlled product.

WHMIS Ingredient Disclosure List IDL:

Antimony Compounds

16. Other information

NFPA: Health: 1 Flammability: 1 Instability: 0

Color code(s)

CF2001

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 ***

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.