



SDR Plastics, Inc.



August 4, 2015

William F. Durham
Director
Division of Air Quality
WV Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

ID # 035-00005
Reg PD15-063
Company SDR Plastics, Inc.
Facility Ravenswood Initials GR
Facility

Dear Director Durham,

SDR Plastics, Inc. (SDR) located in Ravenswood, West Virginia operates in accordance with 45CSR13 permit R13-1564C. In accordance with permit condition 4.1.5.a. SDR is notifying the Director of its intent to process polyethylene resin (PP), polypropylene resin (PE), and specialty thermoplastic polyolefin resin (TPO) at its Ravenswood facility. The safety data sheets for these materials are attached.

SDR does not anticipate any increases in throughputs or emissions with these new resins.

Please advise if additional information is needed.

Sincerely,

Doug Ritchie
President

Attachments

Entire Document
NON-CONFIDENTIAL

SAFETY DATA SHEET

INEOS
Olefins & Polymers USA

Polyethylene (PE) resin

Section 1. Identification

GHS product identifier : Polyethylene (PE) resin
Other means of identification : R-series, B-series, CAP-series, CP-series, G-series, H60-series, HB-series, HD-series, HP-series, HS-series, J-series, K-series, LL-series, PH-series, T-series, TUB-series, Experimental PE formulations designated by an "x" in the grade name, PE homopolymer, PE copolymer, widespec PE, offgrade PE, and generic prime PE.

Covers all nonpigmented commercial and experimental polyethylene homo- and copolymer products.

For product specific information please see our technical and regulatory documents online at www.ineos.com or contact your INEOS account representative.

Product type : Pellets / Flakes.

Recommended use of the chemical and restrictions to use

Product use : Industrial applications.

Area of application : Industrial applications.

Supplier's details : INEOS USA LLC
2600 South Shore Blvd.
#500
League City, Texas 77573
281-535-6600

Additional regulatory information may be available through our website, at www.ineos.com.

e-mail address of person responsible for this SDS : julie.clifford@ineos.com

Emergency telephone number (with hours of operation) : USA 1 (800) 424-9300
Outside USA +1 703-527-3887 (CHEMTREC)

Section 2. Hazards identification

OSHA Classification of the substance or mixture : COMBUSTIBLE DUSTS

GHS label elements

Signal word : Warning

Hazard statements : May form combustible dust concentrations in air.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.



Section 2. Hazards identification

- Supplemental label elements** : Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.
- Hazards not otherwise classified** : COMBUSTIBLE DUSTS. If small particles are generated during further processing, handling, or by other means, combustible dust concentrations in air may form. Fine dust clouds may form explosive mixtures with air. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat. In the event that combustible dust is generated, the hazard is posed only by the size of the particle not its chemical content because all monomers, additives and pigment are totally encapsulated within the resin and cannot be released in pure form.

No ingredient(s) of unknown acute toxicity is intentionally used in this product.

Section 3. Composition/information on ingredients

- Substance/mixture** : Polymer
- Common name and synonyms** : K-series, B-series, CAP-series, CP-series, G-series, H60-series, HB-series, HD-series, HP-series, HS-series, J-series, K-series, LL-series, PH-series, T-series, TUB-series, Experimental PE formulations designated by an "x" in the grade name, PE homopolymer, PE copolymer, widespec PE, offgrade PE, and generic prime PE.

Covers all nonpigmented commercial and experimental polyethylene homo- and copolymer products.

For product specific information please see our technical and regulatory documents online at www.ineos.com or contact your INEOS account representative.

CAS number/other identifiers

- CAS number** : 9002-88-4 or 25087-34-7 or 25213-02-9
- Product code** : SDS# 2000

Ingredient name	Other names	%	CAS number
Ethene, homopolymer	Not available.	>98	9002-88-4
1-Butene, polymer with ethene	Not available.	>90	25087-34-7
1-Hexene, polymer with ethene	Not available.	>90	25213-02-9

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : If affected by fumes from heated material, remove from source of exposure and move the affected person into fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
- Skin contact** : If burned by contact with hot material, flush skin immediately with large amounts of cold water. If possible, submerge area in cold water. No attempt should be made to detach polymer adhering to the skin or to remove clothing attached with molten material. Thermal burns require immediate medical attention. Cold material: Wash with soap and water.

Section 4. First aid measures

- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
- Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
irritation
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Suitable extinguishing media : Use dry chemical powder.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : May be combustible at high temperature.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Section 5. Fire-fighting measures

Burning can produce carbon monoxide and/or carbon dioxide and other harmful products. The major decomposition products are low molecular weight oligomers (C6-18) of polypropylene. Degradation products may include trace amounts of acrolein, formaldehyde, aldehydes, and other organic vapors.

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Granules spilled on the floor can cause slipping. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Section 7. Handling and storage

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Light hydrocarbon vapours can build up in the headspace of tanks. These can cause flammability/explosion hazards even at temperatures below the normal flash point (note: flash point must not be regarded as a reliable indicator of the potential flammability of vapour in tank headspaces). Tank headspaces should always be regarded as potentially flammable and care should be taken to avoid static electrical discharge and all ignition sources during filling, and sampling from storage tanks.

There is a risk of being splashed with molten materials. Heated material can cause thermal burns. Do not breathe gas, fumes or vapor. When handling hot material, wear heat resistant protective gloves, clothing and face shield that are able to withstand the temperature of the heated product. Pneumatic conveying of powder and pellets can generate large static electrical charges. Electrical discharge in presence of air can cause an explosion. Earth all equipment.

Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Fine dust clouds may form explosive mixtures with air. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

The main hazards are related to pallet stock slippage and forklift truck maneuvers, which can cause injury to personnel. It is highly recommended that adequate procedures covering storage handling of pallets are established and maintained. These procedures must be kept up to date and regularly audited. In most cases, best practice is to stack pallets no more than 2 high. However, facilities responsible for storing the material should perform a site specific risk assessment to determine whether pallets can be stacked safely.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (only ingredients with exposure limits are listed).

Ingredient name	Exposure limits
Polyethylene (PE) resin	<p>ACGIH TLV (United States). Particulates Not Otherwise Specified TWA: 10 mg/m³ 8 hours. Form: Inhalable Particulates Not Otherwise Specified TWA: 3 mg/m³ 8 hours. Form: Respirable fraction</p> <p>OSHA PEL (United States). Particulates Not Otherwise Specified TWA: 5 mg/m³ 8 hours. Form: Respirable fraction Particulates Not Otherwise Specified TWA: 15 mg/m³ 8 hours. Form: Total</p>

Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eyeface protection** : Safety glasses with side shields. If operating conditions cause high dust concentrations to be produced, use dust goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. When handling hot material, wear heat-resistant protective gloves that are able to withstand the temperature of molten product. Cold material: None required. However, use of adequate ventilation is good industrial practice.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When handling hot material, wear heat resistant protective gloves, clothing and face shield that are able to withstand the temperature of the heated product. Cold material: None required. However, use of adequate ventilation is good industrial practice.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When handling hot material, wear heat-resistant protective gloves, clothing and face shield that are able to withstand the temperature of the molten product. Cold material: None required. However, use of adequate ventilation is good industrial practice.
- Respiratory protection** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state	: Solid. [Pellets./ Flakes.]
Color	: White to yellowish.
Odor	: Not available.
Odor threshold	: Not available.
pH	: Not available.
Melting point	: 110 to 167°C (230 to 332.6°F)
Boiling point	: Not available.
Flash point	: Not available.
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 0.8 to 0.97
Solubility	: Insoluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: The product is insoluble in water and octanol.
Auto-ignition temperature	: >340°C (>644°F)
Decomposition temperature	: >300°C (>572°F)
Viscosity	: Not available.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	: If heated to more than 300°C, the product may form vapors or fumes which could cause irritation of the respiratory tract, coughing, and shortness of breath. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.
Incompatible materials	:  Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Burning can produce carbon monoxide and/or carbon dioxide and other harmful products. The major decomposition products are low molecular weight oligomers (C6-18) of polypropylene. Degradation products may include trace amounts of acrolein, formaldehyde, aldehydes, and other organic vapors.

Section 11. Toxicological information

Information on the likely routes of exposure : Routes of entry anticipated Oral, Dermal, Inhalation.

Information on toxicological effects (Listed for the components where information is available.)

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
1-Butene, polymer with ethene	LD50 Oral	Rat	4 g/kg	-

- Not available.

Irritation/Corrosion : Not available.

Sensitization : Not available.

Specific target organ toxicity (single exposure) : Not available.

Specific target organ toxicity (repeated exposure) : Not available.

Aspiration hazard : Not available.

Potential acute health effects

Eye contact : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

Inhalation : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
irritation
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : No specific data.

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Route	ATE value
Oral	8355.6 mg/kg

Mutagenicity

Conclusion/Summary : No component of this product at levels greater than or equal to 0.1% is classified by established regulatory criteria as a mutagen.

Carcinogenicity

Conclusion/Summary : None of the components in this product at concentrations greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

Classification

Product/ingredient name	OSHA	IARC	NTP
Ethene, homopolymer	-	3	-

+ : Listed

- : Not applicable

IARC 1 1, Carcinogenic to humans

IARC 2A 2A, Probably carcinogenic to humans

IARC 2B 2B, Possibly carcinogenic to humans

IARC 3 3, Not classifiable as to its carcinogenicity to humans

IARC 4 4, Probably not carcinogenic to humans

Reproductive toxicity

Conclusion/Summary : No known significant effects or critical hazards.

Teratogenicity

Conclusion/Summary : No component of this product at levels greater than or equal to 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.

Section 12. Ecological information**Ecotoxicity**

Conclusion/Summary : Wildlife may ingest plastic pellets or bags. Although not toxic, such materials may physically block the digestive system, causing starvation or death.

Persistence and degradability

: Not available.

Bioaccumulative potential

: Not available.

Mobility in soil

Soil/water partition coefficient (K_{oc})

: Not available.

Mobility

: This product is not likely to move rapidly with surface or groundwater flows because of its low water solubility.

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations**Disposal methods**

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a

Section 13. Disposal considerations

safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

- : Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

Additional regulatory information may be available through our website, at www.ineos.com.

U.S. Federal regulations : **United States inventory (TSCA 8b):** All components are listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

: No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Section 15. Regulatory information

Classification : Fire hazard
Composition/information on ingredients : No products were found.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	0
Flammability	1
Physical hazards	0

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 SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of issue/Date of revision : 01/05/2015
Date of previous issue : No previous version.
Version : 1.01

Key to abbreviations : ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 UN = United Nations

Section 16. Other information

References

- : HCS (U.S.A.)- Hazard Communication Standard
- International transport regulations Hazardous Substances Database (HSDB) : toxicology data file on the National Library of Medicine's (NLM) Toxicology Data Network (TOXNET).
- Registry of Toxic Effects of Chemical Substances (RTECS)
- Commission de la santé et de la sécurité du travail, Service du répertoire toxicologique (CSST) : information on chemical products used in the workplace including WHMIS classification.
- National Toxicology Program (NTP), Department of Health and Human Services: Report on Carcinogens
- International Agency for Research on Cancer (IARC). List of Carcinogens
- Occupational Safety and Health Administration (OSHA) (29 CFR 1910.1001-1052) – Carcinogens
- National Institute for Occupational Safety and Health; NIOSH Pocket Guide to Chemical Hazards.
- Aquatic Toxicity Information Retrieval (AQUIRE)

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET

INEOS
Olefins & Polymers USA

Polypropylene (PP) resin

Section 1. Identification

GHS product identifier : Polypropylene (PP) resin

Other means of identification : 10-3950, 13-series, 14-series, 100-series, H-series, KL-series, KS-series, KV-series, L-series, N-series, R-series, T-series, TS01, W-series. Experimental PP formulations designated by an "x" in the grade name, PP homopolymer, PP copolymer, PP terpolymer, widespec PP, offgrade PP, and generic prime PP.

Covers all commercial and experimental polypropylene homo- and co-polymer products.

For product specific information please see our technical and regulatory documents online at www.ineos.com or contact your INEOS account representative.

Product type : Pellets./ Flakes.

Recommended use of the chemical and restrictions to use

Product use : Industrial applications.

Area of application : Industrial applications.

Supplier's details : INEOS Olefins & Polymers USA
2600 South Shore Blvd.
#500
League City, Texas 77573

e-mail address of person responsible for this SDS : julie.clifford@ineos.com

Emergency telephone number (with hours of operation) : USA:1 (800) 424-9300
Outside USA:+1 703-527-3887 (CHEMTREC)

Section 2. Hazards identification

OSHA Classification of the substance or mixture : COMBUSTIBLE DUSTS

GHS label elements

Signal word : Warning

Hazard statements : May form combustible dust concentrations in air.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Supplemental label elements : Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.

Section 2. Hazards identification

Hazards not otherwise classified : COMBUSTIBLE DUSTS. If small particles are generated during further processing, handling, or by other means, combustible dust concentrations in air may form. Fine dust clouds may form explosive mixtures with air. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat. In the event that combustible dust is generated, the hazard is posed only by the size of the particle not its chemical content because all monomers, additives and pigment are totally encapsulated within the resin and cannot be released in pure form.

No ingredient(s) of unknown acute toxicity is intentionally used in this product.

Section 3. Composition/information on ingredients

Substance/mixture : Polymer
Common name and synonyms : 5-3950, 13-series, 14-series, 100-series, H-series, KL-series, KS-series, KV-series, L-series, N-series, P-series, T-series, TS01, W-series, Experimental PP formulations designated by an "x" in the grade name, PP homopolymer, PP copolymer, PP terpolymer, widespec PP, offgrade PP, and generic prime PP.

Covers all commercial and experimental polypropylene homo- and co-polymer products.

For product specific information please see our technical and regulatory documents online at www.ineos.com or contact your INEOS account representative.

CAS number/other identifiers

CAS number : 9003-07-0/9010-79-1/29160-13-2/25895-47-0

Product code : SDS# 1800

Ingredient name	Other names	%	CAS number
Propene, homopolymer	Not available.	0-100	9003-07-0
1-Propene, polymer with ethene	Not available.	0-100	9010-79-1
1-Butene, polymer with 1-propene	Not available.	0-100	29160-13-2
1-Butene, polymer with ethene and 1-propene	Not available.	0-100	25895-47-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : If affected by fumes from heated material, remove from source of exposure and move the affected person into fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
- Skin contact** : If burned by contact with hot material, flush skin immediately with large amounts of cold water. If possible, submerge area in cold water. No attempt should be made to detach polymer adhering to the skin or to remove clothing attached with molten material. Thermal burns require immediate medical attention. Cold material: Wash with soap and water.

Section 4. First aid measures

- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
- Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
irritation
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Suitable extinguishing media : Use dry chemical powder.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : May be combustible at high temperature.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
Burning can produce carbon monoxide and/or carbon dioxide and other harmful products. The major decomposition products are low molecular weight oligomers (C6-18) of polypropylene. Degradation products may include trace amounts of acrolein, formaldehyde, aldehydes, and other organic vapors.

Section 5. Fire-fighting measures

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Granules spilled on the floor can cause slipping. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Section 7. Handling and storage

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Light hydrocarbon vapours can build up in the headspace of tanks. These can cause flammability/explosion hazards even at temperatures below the normal flash point (note flash point must not be regarded as a reliable indicator of the potential flammability of vapour in tank headspaces). Tank headspaces should always be regarded as potentially flammable and care should be taken to avoid static electrical discharge and all ignition sources during filling, and sampling from storage tanks.

There is a risk of being splashed with molten materials. Heated material can cause thermal burns. Do not breathe gas, fumes or vapor. When handling hot material, wear heat resistant protective gloves, clothing and face shield that are able to withstand the temperature of the heated product. Pneumatic conveying of powder and pellets can generate large static electrical charges. Electrical discharge in presence of air can cause an explosion. Earth all equipment.

Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Fine dust clouds may form explosive mixtures with air. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. The main hazards are related to pallet stock slippage and forklift truck maneuvers, which can cause injury to personnel. It is highly recommended that adequate procedures covering storage handling of pallets are established and maintained. These procedures must be kept up to date and regularly audited. In most cases, best practice is to stack pallets no more than 2 high. However, facilities responsible for storing the material should perform a site specific risk assessment to determine whether pallets can be stacked safely.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (only ingredients with exposure limits are listed).

Ingredient name	Exposure limits
Polypropylene (PP) resin	<p>ACGIH TLV (United States). Particulates Not Otherwise Specified TWA: 10 mg/m³ 8 hours. Form: Inhalable Particulates Not Otherwise Specified TWA: 3 mg/m³ 8 hours. Form: Respirable fraction</p> <p>OSHA PEL (United States). Particulates Not Otherwise Specified TWA: 5 mg/m³ 8 hours. Form: Respirable fraction Particulates Not Otherwise Specified TWA: 15 mg/m³ 8 hours. Form: Total</p>

Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eyeface protection** : Safety glasses with side shields. If operating conditions cause high dust concentrations to be produced, use dust goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. When handling hot material, wear heat-resistant protective gloves that are able to withstand the temperature of molten product. Cold material: None required. However, use of adequate ventilation is good industrial practice.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When handling hot material, wear heat resistant protective gloves, clothing and face shield that are able to withstand the temperature of the heated product. Cold material: None required. However, use of adequate ventilation is good industrial practice.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When handling hot material, wear heat-resistant protective gloves, clothing and face shield that are able to withstand the temperature of the molten product. Cold material: None required. However, use of adequate ventilation is good industrial practice.
- Respiratory protection** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state	: Solid. [Pellets./ Flakes]
Color	: White to yellowish.
Odor	: Not available.
Odor threshold	: Not available.
pH	: Not available.
Melting point	: 135 to 167°C (275 to 332.6°F)
Boiling point	: Not available.
Flash point	: Not available.
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 0.85 to 0.965
Solubility	: Insoluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: The product is insoluble in water and octanol.
Auto-ignition temperature	: >340°C (>644°F)
Decomposition temperature	: >300°C (>572°F)
Viscosity	: Not available.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	: If heated to more than 300°C, the product may form vapors or fumes which could cause irritation of the respiratory tract, coughing, and shortness of breath. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.
Incompatible materials	:  Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Burning can produce carbon monoxide and/or carbon dioxide and other harmful products. The major decomposition products are low molecular weight oligomers (C6-18) of polypropylene. Degradation products may include trace amounts of acrolein, formaldehyde, aldehydes, and other organic vapors.

Section 11. Toxicological information

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation.

Information on toxicological effects (Listed for the components where information is available.)

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
1-Propene, homopolymer	LD50 Oral	Rat	>8 g/kg	-

- : Not available.

Irritation/Corrosion : Not available.

Sensitization : Not available.

Specific target organ toxicity (single exposure) : Not available.

Specific target organ toxicity (repeated exposure) : Not available.

Aspiration hazard : Not available.

Potential acute health effects

Eye contact : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

Inhalation : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
irritation
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : No specific data.

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

Numerical measures of toxicity

Acute toxicity estimates : Not available.

Mutagenicity

Section 11. Toxicological information

Conclusion/Summary : No component of this product at levels greater than or equal to 0.1% is classified by established regulatory criteria as a mutagen.

Carcinogenicity

Conclusion/Summary : None of the components in this product at concentrations greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

Classification

Product/ingredient name	OSHA	IARC	NTP
1-Propene, homopolymer	-	3	-

+ : Listed

- : Not applicable.

IARC 1 : 1, Carcinogenic to humans

IARC 2A : 2A, Probably carcinogenic to humans

IARC 2B : 2B, Possibly carcinogenic to humans

IARC 3 : 3, Not classifiable as to its carcinogenicity to humans

IARC 4 : 4, Probably not carcinogenic to humans

Reproductive toxicity

Conclusion/Summary : No known significant effects or critical hazards.

Teratogenicity

Conclusion/Summary : No component of this product at levels greater than or equal to 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.

Section 12. Ecological information

Ecotoxicity

Conclusion/Summary : Wildlife may ingest plastic pellets or bags. Although not toxic, such materials may physically block the digestive system, causing starvation or death.

Persistence and degradability

: Not available.

Bioaccumulative potential

: Not available.

Mobility in soil

Soil/water partition coefficient (K_{oc})

: Not available.

Mobility

: This product is not likely to move rapidly with surface or groundwater flows because of its low water solubility.

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

- : Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

Additional regulatory information may be available through our website, at www.ineos.com.

U.S. Federal regulations : **United States inventory (TSCA 8b):** All components are listed or exempted.

Clean Air Act Section 112 : Not listed

(b) Hazardous Air Pollutants (HAPs)

Clean Air Act Section 602 : Not listed

Class I Substances

Clean Air Act Section 602 : Not listed

Class II Substances

DEA List I Chemicals : Not listed

(Precursor Chemicals)

DEA List II Chemicals : Not listed

(Essential Chemicals)

SARA 302/304

Composition/information on ingredients : No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Fire hazard

Composition/information on ingredients : No products were found.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	0
Flammability	1
Physical hazards	0

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 SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of issue/Date of revision : 12/02/2014
 Date of previous issue : No previous version.
 Version : 2

Key to abbreviations

: ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 UN = United Nations

References

: HCS (U.S.A.)- Hazard Communication Standard
 International transport regulations Hazardous Substances Database (HSDB) : toxicology data file on the National Library of Medicine's (NLM) Toxicology Data Network (TOXNET).
 Registry of Toxic Effects of Chemical Substances (RTECS)
 Commission de la santé et de la sécurité du travail, Service du répertoire toxicologique (CSST) : information on chemical products used in the workplace including WHMIS classification.
 National Toxicology Program (NTP), Department of Health and Human Services: Report on Carcinogens
 International Agency for Research on Cancer (IARC), List of Carcinogens

Section 16. Other information

Occupational Safety and Health Administration (OSHA) (29 CFR 1910.1001-1052) –
Carcinogens
National Institute for Occupational Safety and Health; NIOSH Pocket Guide to Chemical
Hazards.
Aquatic Toxicity Information Retrieval (AQUIRE)

☑ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Product Name: SPECIALTY THERMOPLASTIC POLYOLEFIN RESIN

Revision Date: 10 Jun 2015

Page 1 of 14

ExxonMobil Chemical Company
P.O. Box 3272
Houston, TX 77253-3272

Subject: OSHA Hazard Communication 2012 Combustible Dust Labeling

Dear ExxonMobil Customer:

As you may be aware, in March 2012, the U.S. Occupational Safety and Health Administration (OSHA) issued its final Hazard Communication Standard which stated its intent to adopt the United Nations' Globally Harmonized System (GHS) for the classification and labeling of hazardous substances. This updated hazard communication standard requires product labels for hazardous substances and mixtures. In addition to product labels, the standard requires suppliers to provide Safety Data Sheets (SDSs), previously known as Material Safety Data Sheets (MSDSs), for all hazardous products.

The UN GHS does not contain a classification for combustible dust hazards. The combustible dust hazard was an element OSHA desired to include in its standard. As such, OSHA amended the standard definition of "hazardous chemical" to include "combustible dust" which has resulted in a hazard classification of certain polymer materials and the need to provide a hazard label. For polymer materials presenting a combustible dust hazard as shipped, a label will be applied to each package. For polymers that do not present a combustible dust hazard in the shipped form, OSHA permits the transmittal of label information with the SDS. Enclosed please find the combustible dust label for the referenced product.

If you have any questions, please direct them to your ExxonMobil Customer Service Representative.



Product Name: SPECIALTY THERMOPLASTIC POLYOLEFIN RESIN

Revision Date: 10 Jun 2015

Page 2 of 14

Please find below an OSHA HazCom 2012 label for SPECIALTY THERMOPLASTIC POLYOLEFIN RESIN for combustible dust hazard.

SPECIALTY THERMOPLASTIC POLYOLEFIN RESIN

EXXONMOBIL CHEMICAL COMPANY

Chemicals PS&RA – SDSs

Mail Code: N1.1A.505

P.O. BOX 3272

HOUSTON, TX. 77253-3272 USA

24 Hour Health Emergency

Transportation Emergency Phone

Product Technical Information

Supplier General Contact

(800) 726-2015

(800) 424-9300 or (703) 527-3887 CHEMTREC

(832) 624-8500

(832) 624-8500

Warning

May form combustible dust concentrations in air

**Dust clouds are explosive
Product is a static accumulator
Avoid heat, sparks, open flame
Earth wherever possible**

For more information, see Safety Data Sheet

**For further information on this product,
See manufacturer's data sheet**

SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: SPECIALTY THERMOPLASTIC POLYOLEFIN RESIN

Product Description: Polyolefin, see Section 16 for applicable grades.

Intended Use: Coatings, Extrusion and moulding

COMPANY IDENTIFICATION

Supplier: EXXONMOBIL CHEMICAL COMPANY

Chemicals PS&RA – SDSs

Mail Code: N1.1A.505

P.O. BOX 3272

HOUSTON, TX. 77253-3272 USA

24 Hour Health Emergency (800) 726-2015

Transportation Emergency Phone (800) 424-9300 or (703) 527-3887 CHEMTREC

Product Technical Information (832) 624-8500

Supplier General Contact (832) 624-8500

SECTION 2 HAZARDS IDENTIFICATION

This material is hazardous according to regulatory guidelines (see (M)SDS Section 15).

CLASSIFICATION:

Combustible Dust

LABEL:

Signal Word: Warning

Hazard Statements:

May form combustible dust concentrations in air.

Other hazard information:

HAZARD NOT OTHERWISE CLASSIFIED (HNOC): None as defined under 29 CFR 1910.1200.

PHYSICAL / CHEMICAL HAZARDS

WARNING: May form combustible dust concentrations in air (during processing/handling). Thermal burn hazard - contact with hot material may cause thermal burns. Material can accumulate static charges which may cause an ignition. Spilled pellets present a slipping hazard on hard surfaces.

Product Name: SPECIALTY THERMOPLASTIC POLYOLEFIN RESIN

Revision Date: 10 Jun 2015

Page 4 of 14

HEALTH HAZARDS

If dust is generated, it could scratch the eyes and cause minor irritation to the respiratory tract. When heated, the vapors/fumes given off may cause respiratory tract irritation.

ENVIRONMENTAL HAZARDS

No significant hazards.

NFPA Hazard ID: Health: 1 Flammability: 1 Reactivity: 0
HMIS Hazard ID: Health: 1 Flammability: 1 Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 3	COMPOSITION / INFORMATION ON INGREDIENTS
------------------	---

This material is defined as a mixture.

Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
ACID NEUTRALIZER		0 - 0.2%	H400(M factor 1), H410(M factor 1)
BLACK PIGMENT		<3%	None
FILLER		0 - 40%	None
GREEN PIGMENT		0 - 0.35%	H315, H319(2A), H317
PHOSPHITE ANTIOXIDANT		0 - 0.2%	H410(M factor 1)
WHITE PIGMENT		0 - 1.1%	None

* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

NOTE: The substances in the above table are components of one or more, but not all product grades.

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

SECTION 4	FIRST AID MEASURES
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INHALATION

At ambient/normal handling temperatures, no adverse effects due to inhalation of dust are expected. In case of adverse exposure to vapors and / or aerosols formed at elevated temperatures, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest.

SKIN CONTACT

Wash contact areas with soap and water. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

Product Name: SPECIALTY THERMOPLASTIC POLYOLEFIN RESIN

Revision Date: 10 Jun 2015

Page 5 of 14

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

INGESTION

No adverse effects due to ingestion are expected.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Inappropriate Extinguishing Media: Straight Streams of Water

FIRE FIGHTING

Fire Fighting Instructions: Use standard firefighting procedures and consider the hazards of other involved materials. Assure an extended cooling down period to prevent re-ignition. Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Explosion: Avoid generating dust; fine dust dispersed in air in sufficient concentration and in the presence of an ignition source is a potential dust explosion hazard.

Hazardous Combustion Products: Flammable hydrocarbons, Incomplete combustion products, Smoke, Fume, Oxides of carbon

FLAMMABILITY PROPERTIES

Flash Point [Method]: N/A

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/A

SECTION 6 ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. 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 (for example, clearing dust surfaces with compressed air). Prevent dust exposure to ignition sources. For example, use non-sparking tools and prohibit smoking, flares, sparks or flames in immediate area. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for

Product Name: SPECIALTY THERMOPLASTIC POLYOLEFIN RESIN

Revision Date: 10 Jun 2015

Page 6 of 14

personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

SPILL MANAGEMENT

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Spilled pellets present a slipping hazard on hard surfaces. Prevent dust cloud. Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Prevent entry into waterways, sewers, basements or confined areas. For Large Spills: Cover spill with plastic sheet or tarpaulin to minimize spreading.

SECTION 7

HANDLING AND STORAGE

HANDLING

Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dust from material can accumulate electrostatic charges due to friction from transfer and mixing operations and cause an electrical spark (ignition source). Provide adequate precautions to ignition sources, such as electrical grounding and bonding, inert atmosphere or non-sparking tools. However, bonding and grounds may not eliminate the hazard for static accumulation. Consult local applicable standards for guidance. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids and EN 61241, Electrical Apparatus for Use in the Presence of Combustible Dust for safe handling. Avoid elevated temperatures for prolonged periods of time. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Prevent small spills and leakage to avoid slip hazard. Care should be taken when storing and handling this product. Apart from the specific nature of the polymer product, conditions such as humidity, sunlight, and temperature have an influence on the way the product behaves during storage and handling. Special attention should be paid to avoid inappropriate stacking of palletized bags or other package units. Indeed, polymer products may be dimensionally unstable under certain conditions. Avoid conditions generating heat during transfer operations.

Loading/Unloading Temperature: [Ambient]

Transport Temperature: [Ambient]

Transport Pressure: [Ambient]

Static Accumulator: This material is a static accumulator.

STORAGE

The container choice, for example storage vessel, may effect static accumulation and dissipation.

Storage Temperature: [Ambient]

Storage Pressure: [Ambient]

Product Name: SPECIALTY THERMOPLASTIC POLYOLEFIN RESIN

Revision Date: 10 Jun 2015

Page 7 of 14

Suitable Containers/Packing: Bags; Bulk Containers; Octatiner

Suitable Materials and Coatings (Chemical Compatibility): Aluminum; Cardboard

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Substance Name	Form	Limit / Standard		NOTE	Source
ACID NEUTRALIZER	Fume.	TWA	5 mg/m3	N/A	OSHA Z1
ACID NEUTRALIZER	Respirable fraction.	TWA	5 mg/m3	N/A	OSHA Z1
ACID NEUTRALIZER	Total dust.	TWA	15 mg/m3	N/A	OSHA Z1
ACID NEUTRALIZER	Respirable fraction.	STEL	10 mg/m3	N/A	ACGIH
ACID NEUTRALIZER	Respirable fraction.	TWA	2 mg/m3	N/A	ACGIH
BLACK PIGMENT		TWA	3.5 mg/m3	N/A	OSHA Z1
BLACK PIGMENT	Inhalable fraction.	TWA	3 mg/m3	N/A	ACGIH
FILLER	Respirable fraction.	TWA	2 mg/m3	N/A	ACGIH
GREEN PIGMENT [as Cr]		TWA	0.5 mg/m3	N/A	OSHA Z1
GREEN PIGMENT [as Cr]		TWA	0.5 mg/m3	N/A	ACGIH
WHITE PIGMENT	Total dust.	TWA	15 mg/m3	N/A	OSHA Z1
WHITE PIGMENT		TWA	10 mg/m3	N/A	ACGIH

Exposure limits/standards for materials that can be formed when handling this product: For dusty conditions, OSHA recommends for particulates not otherwise regulated an 8-hour TWA of 15 mg/m3 (total dust), 5 mg/m3 (respirable fraction); ACGIH recommends for insoluble and poorly soluble particles not otherwise specified an 8-hour TWA of 10 mg/m3 (inhalable particles), 3 mg/m3 (respirable particles).

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

No biological limits allocated.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

Adequate ventilation should be provided so that exposure limits are not exceeded. **SPECIAL PRECAUTIONS:** Should significant vapors/fumes be generated during thermal processing of this product, it is recommended that work stations be monitored for the presence of thermal degradation by-products which may evolve at elevated temperatures (for example, oxygenated components). Processors of this product should assure that adequate ventilation or other controls are used to control exposure. It is recommended that the current ACGIH-TLVs for thermal degradation by-products be observed. Contact your local sales representative for further information. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product are designed and maintained to minimize dust generation and accumulation. Ensure that dust-handling systems (such as exhaust ducts, dusts collectors, vessels, and processing equipment) are designed to minimize the potential for dust ignition and prevent explosion propagation.

Product Name: SPECIALTY THERMOPLASTIC POLYOLEFIN RESIN

Revision Date: 10 Jun 2015

Page 8 of 14

For example, use explosion relief vents, an explosion suppression system or inert equipment internals. Additional examples of proper equipment include using only appropriately classified electrical equipment and powered industrial trucks.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

Particulate air-purifying respirator approved for dust / oil mist is recommended.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

If product is hot, thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

GENERAL INFORMATION

Physical State: Solid

Product Name: SPECIALTY THERMOPLASTIC POLYOLEFIN RESIN

Revision Date: 10 Jun 2015

Page 9 of 14

Form: Pellet, Granule
Color: White to Off-White (may be colored)
Odor: None to Mild
Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 20 °C): 1 - 1.2 [In-house method]
Bulk Density: 0.45 g/cc at 20 °C - 0.6 g/cc at 20 °C [In-house method]
Density: 1000 kg/m³ (8.35 lbs/gal, 1 kg/dm³) - 1200 kg/m³ (10.01 lbs/gal, 1.2 kg/dm³) [In-house method]
Flammability (Solid, Gas): N/A
Flash Point [Method]: N/A
Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D
Autoignition Temperature: N/A
Boiling Point / Range: N/A
Decomposition Temperature: N/D
Vapor Density (Air = 1): N/A
Vapor Pressure: N/A
Evaporation Rate (n-butyl acetate = 1): N/A
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): N/A
Solubility in Water: Negligible
Viscosity: N/A
Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION

Freezing Point: N/A
Melting Point: 160°C (320°F) - 170°C (338°F) [In-house method]
Hygroscopic: No

SECTION 10	STABILITY AND REACTIVITY
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REACTIVITY: See sub-sections below.

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Elevated temperatures. >288 °C (550.4 °F)

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

SECTION 11	TOXICOLOGICAL INFORMATION
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INFORMATION ON TOXICOLOGICAL EFFECTS

Hazard Class	Conclusion / Remarks
Inhalation	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on chemical structure (polymers).

Product Name: SPECIALTY THERMOPLASTIC POLYOLEFIN RESIN

Revision Date: 10 Jun 2015

Page 10 of 14

Irritation: No end point data for material.	Negligible hazard at ambient/normal handling temperatures.
Ingestion	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on chemical structure (polymers).
Skin	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on chemical structure (polymers).
Skin Corrosion/Irritation: No end point data for material.	Negligible irritation to skin at ambient temperatures. Based on chemical structure (polymers).
Eye	
Serious Eye Damage/Irritation: No end point data for material.	May cause mild, short-lasting discomfort to eyes. Based on chemical structure (polymers).
Sensitization	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: No end point data for material.	Not expected to be a skin sensitizer. Based on chemical structure (polymers).
Aspiration: No end point data for material.	Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.
Germ Cell Mutagenicity: No end point data for material.	Not expected to be a germ cell mutagen. Based on chemical structure (polymers).
Carcinogenicity: No end point data for material.	Not expected to cause cancer. Based on chemical structure (polymers).
Reproductive Toxicity: No end point data for material.	Not expected to be a reproductive toxicant. Based on chemical structure (polymers).
Lactation: No end point data for material.	Not expected to cause harm to breast-fed children.
Specific Target Organ Toxicity (STOT)	
Single Exposure: No end point data for material.	Not expected to cause organ damage from a single exposure.
Repeated Exposure: No end point data for material.	Not expected to cause organ damage from prolonged or repeated exposure. Based on chemical structure (polymers).

OTHER INFORMATION

For the product itself:

Dust may be irritating to the eyes and respiratory tract.

Elevated temperatures or mechanical action may form vapors, mists or fumes which may be irritating to the eyes and respiratory tract.

Contains:

CHROMIUM AND CHROMIUM COMPOUNDS : High concentrations and repeated applications may cause skin ulceration, liver and kidney damage, bronchogenic cancers and perforation of mucous membranes.

Additives that are encapsulated in the polymer. Under the normal conditions for processing and use of this polymer the encapsulated additives are not expected to pose any health hazard. However, grinding of the polymer is not recommended without the use of appropriate measures to control exposure (see Section 8 - Engineering Controls).

Talc (Encapsulated): This product may contain talc as an additive that is encapsulated in the polymer. Although inflammation, fibrosis, and tumors were observed in lungs of laboratory animals exposed to high aerosol concentrations of talc, the encapsulated talc is not expected to pose a health hazard under normal use conditions.

Carbon black: Some grades contain carbon black as an additive. Certain carbon blacks have proved carcinogenic in animal studies. Inhalation animal studies of high concentrations resulted in chronic inflammation, lung fibrosis and lung tumors. Epidemiology studies of workers include findings of bronchitis, pneumonia, emphysema and excess cancer.

Substances bound in a polymer or other matrix should present little or no hazard.

Product Name: SPECIALTY THERMOPLASTIC POLYOLEFIN RESIN

Revision Date: 10 Jun 2015

Page 11 of 14

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
BLACK PIGMENT		5
WHITE PIGMENT		5
FILLER		5

--REGULATORY LISTS SEARCHED--

1 = NTP CARC

2 = NTP SUS

3 = IARC 1

4 = IARC 2A

5 = IARC 2B

6 = OSHA CARC

SECTION 12	ECOLOGICAL INFORMATION
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The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

MOBILITY

High molecular wt. component -- Low water solubility, expected to sink and migrate into the sediment. Expected to partition to sediment and wastewater solids.

Low molecular wt. component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Material -- Expected to be persistent.

SECTION 13	DISPOSAL CONSIDERATIONS
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Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Suitable routes of disposal are supervised incineration, preferentially with energy recovery, or appropriate recycling methods in accordance with applicable regulations and material characteristics at the time of disposal.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous

Product Name: SPECIALTY THERMOPLASTIC POLYOLEFIN RESIN

Revision Date: 10 Jun 2015

Page 12 of 14

waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

SECTION 14	TRANSPORT INFORMATION
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LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

Marine Pollutant: No

AIR (IATA): Not Regulated for Air Transport

SECTION 15	REGULATORY INFORMATION
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OSHA HAZARD COMMUNICATION STANDARD: This material is considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.

Listed or exempt from listing/notification on the following chemical inventories: TSCA

EPCRA SECTION 302: This material contains no extremely hazardous substances.

CWA / OPA: Plastic pellets are defined by the US EPA under the Clean Water Act (40CFR122.26) as a "significant material" which requires any industrial plant that may expose pellets to storm water to secure a storm water permit. Violations of the rule carry the same penalties as other Clean Water Act violations. Pellets found in storm water runoff are subject to EPA regulations with the potential for substantial fines and penalties.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
ACID NEUTRALIZER		15
BLACK PIGMENT		1, 4, 10, 13, 16, 17, 18

Product Name: SPECIALTY THERMOPLASTIC POLYOLEFIN RESIN

Revision Date: 10 Jun 2015

Page 13 of 14

BLUE PIGMENT		15
FILLER		1, 13, 16, 17, 18
GREEN PIGMENT		15
WHITE PIGMENT		1, 4, 13, 16

--REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16	OTHER INFORMATION
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This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. This product contains a chemical known to the State of California to cause cancer.

N/D = Not determined, N/A = Not applicable

KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):

- H315: Causes skin irritation; Skin Corr/Irritation, Cat 2
- H317: May cause allergic skin reaction; Skin Sensitization, Cat 1
- H319(2A): Causes serious eye irritation; Serious Eye Damage/Irr, Cat 2A
- H400: Very toxic to aquatic life; Acute Env Tox, Cat 1
- H410: Very toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 1

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Updates made in accordance with implementation of GHS requirements.

THIS MSDS COVERS THE FOLLOWING MATERIALS: This MSDS covers polypropylene Exxtral grades products. | 1000 | BMT102 | BMT106 | BMT222 | BMT224 | BMT225 | BMT308 | BMU130P | BMU131 | BMU133 | BMU139 | BMU141 | BMU143 | BMU143S | BMU146E | BMU147 | BMU148 | BMU233 | BMU234 | BMU235E | BMU305W | BMU401X | BMU402X | BMV201 | BMV203 | BMV207 | BMV208 | BMV212 | BMV212A | BMV212V | BMV212W | BMV214 | BMV215 | BMV215P | BMV226A | BMV230A | BMV301 | BMW201P | BMW201W | BMX201A | BNT010 | BNT011 | BNT013 | BNU001A | BNU011 | BNU013 | BNV002A | BNV004 | BNV004A | CMN303 | CMU101 | CMU101D | CMU201 | CMU205 | CMU236 | CMU308 | CMV101A | CMV203 | CMV205 | CMV206 | CMV207 | CMV208 | CMV210S | CMV241 | CMW203 | CMW402 | CNK010 | CNR012 | CNU011 | CNU012 | CNU013 | CNU015 | CNU017 | CNV002A | CNW001A | CNW010 | COPOFRA | HMU202 | HMU208 | HMU216 | HMU234 | HMU301 | HMU404 | HMU405 | HOMOFRFA | LNT010 | LNU011 | LNU012 | LNV010 | MDK310 | MDK323 | MDK323A | MDK373 | MDK373A | PP1403 | PPMINFIL | PPMINFIL_HOMO | PPMINFIL_ICP | PPMINFIL_RUBMOD | PPUNFIL | PPUNFIL_RUBMOD | RNU011 | Suffix | 11801 | 31804 | 32803 | This MSDS includes all non-pigmented and integrally colored versions of the grades which are distinguishable by an accompanying 5 digits suffix.

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Product Name: SPECIALTY THERMOPLASTIC POLYOLEFIN RESIN

Revision Date: 10 Jun 2015

Page 14 of 14

examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, republication or retransmission of this document, in whole or in part, is not permitted. The term, "ExxonMobil" is used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliates in which they directly or indirectly hold any interest.

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