MATERIAL SAFETY DATA SHEET Novablend 2677 LIGHT GRAY (Boreal)

Version Number 1.0 Revision Date 04/10/2013

Page 1 of 8 Print Date 4/10/2013

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

Telephone Emergency telephone number	:	1 (440) 930-1000 or 1 (866) POLYONE CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	Novablend 2677 LIGHT GRAY (Boreal)
Product code	:	VC10009185
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
8-Oxa-3,5-dithia-4-stannatetradecanoic acid, 10-ethyl-4,4-dimethyl-7-oxo-, 2-ethylhexyl ester	57583-35-4	1 - 5
Stannane, methyltris(2- ethylhexyloxycarbonylmethylthio)-	57583-34-3	1 - 5
Nickel antimony yellow rutile (C.I. Pigment Yellow 53)	8007-18-9	0.1 - 1
Calcium stearate	1592-23-0	1 - 5
Titanium dioxide	13463-67-7	5 - 10

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating or processing. The end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. See sections 8 and 11 for special precautions. May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions.

POTENTIAL HEALTH EFFECTS

Routes of Exposure:	: Inhalation, Ingestion, Skin contact	
Acute exposure		
Inhalation	: Resin particles, like other inert materials, can be mechanically	

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MATERIAL SAFETY DATA SHEET Novablend 2677 LIGHT GRAY (Boreal)

Version Number 1.0 Revision Date 04/10/2013 Page 2 of 8 Print Date *4/10/2013*

Ingestion Eyes Skin	 May be harmful if swallowed. Resin particles, like other inert materials, are mechanically irritating to eyes. Experience shows no unusual dermatitis hazard from routine handling.
Chronic exposure	: Refer to Section 11 for Toxicological Information.
Medical Conditions Aggravated by Exposure:	: None known.
	4. FIRST AID MEASURES
Inhalation	: Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. When symptoms persist or in all cases of doubt seek medical advice.
Ingestion	: Do not induce vomiting without medical advice. When symptoms persist or in all cases of doubt seek medical advice.
Eyes	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, seek medical attention.
Skin	: Wash off with soap and plenty of water. If skin irritation persists seek medical attention.
	5. FIREFIGHTING MEASURES
Flash point	: not applicable
Flammable Limits	
Upper explosion limit Lower explosion limit	not applicablenot applicable
Auto-ignition temperature	: Not applicable
Suitable extinguishing media	: Carbon dioxide blanket, Water spray, Dry powder, Foam.
Special Fire Fighting Procedures	: Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.
Unusual Fire/Explosion Hazards	 May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.
	6. ACCIDENTAL RELEASE MEASURES
Personal precautions	: Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.

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MATERIAL SAFETY DATA SHEET Novablend 2677 LIGHT GRAY (Boreal)

ion Number 1.0 sion Date 04/10/2013		Page 3 Print Date 4/10/2
Environmental precautions	:	Should not be released into the environment. The product should not be allowed to enter drains, water courses or the soil.
Methods for cleaning up	:	Clean up promptly by sweeping or vacuum. Package all material in plastic, cardboard or metal containers for disposal.
		7. HANDLING AND STORAGE
Handling	:	Take measures to prevent the build up of electrostatic charge. Heat only in areas with appropriate exhaust ventilation. Processing fume condensates may contain combustible or toxic residue. Periodically clean hoods, ducts, and other surfaces to minimize accumulation of these materials.
Storage	:	Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.
8. EXP	OSU	RE CONTROLS/PERSONAL PROTECTION
Respiratory protection	:	No personal respiratory protective equipment normally required. If dusty conditions occur wear appropriate respiratory protection.
Eye/Face Protection	:	Safety glasses with side-shields
Hand protection	:	Protective gloves
Skin and body protection	:	Long sleeved clothing
Additional Protective Measures	:	Safety shoes
General Hygiene Considerations	:	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. This product may contain residual vinyl chloride monomer (VCM) (CAS number 75-01-4) below 8.5 ppm (0.00085%). It is unlikely, under normal working conditions with adequate ventilation, that the exposure limits will be exceeded for residual VCM. However, the user should take the necessary precautions (e.g. mechanical ventilation, local exhaust ventilation, air-monitoring, respiratory protection, etc.) to ensure airborne levels of any vapors including VCM or dusts that may be released during heating or processing are below regulated levels.
Engineering measures	:	Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.
Exposure limit(s)		

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MATERIAL SAFETY DATA SHEET Novablend 2677 LIGHT GRAY (Boreal)

Version Number 1.0 Revision Date 04/10/2013 Page 4 of 8 Print Date 4/10/2013

Components	Value	Exposure time	Exposure type	List:
Nickel antimony	0.015	Recommended exposure	as Ni	NIOSH
yellow rutile (C.I.	mg/m3	limit (REL):		
Pigment Yellow 53)				
	1 mg/m3	PEL:	as Ni	OSHA Z1
	1 mg/m3	Time Weighted Average	as Ni	OSHA Z1A
		(TWA):		
	0.2 mg/m3	Time Weighted Average	Inhalable fraction. as	ACGIH
		(TWA):	Ni	
	0.5 mg/m3	Time Weighted Average	as Sb	ACGIH
	_	(TWA):		
	0.5 mg/m3	Recommended exposure	as Sb	NIOSH
	_	limit (REL):		
	0.5 mg/m3	PEL:	as Sb	OSHA Z1
	0.5 mg/m3	Time Weighted Average	as Sb	OSHA Z1A
		(TWA):		
	0.5 mg/m3	Time Weighted Average	as Sb	MX OEL
	_	(TWA):		
Calcium stearate	10 mg/m3	Time Weighted Average		ACGIH
	_	(TWA):		
Titanium dioxide	10 mg/m3	Time Weighted Average		ACGIH
		(TWA):		
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	10 mg/m3	Time Weighted Average	Total dust.	OSHA Z1A
	_	(TWA):		
	10 mg/m3	Time Weighted Average	as Ti	MX OEL
		(TWA):		
	20 mg/m3	Short Term Exposure Limit	as Ti	MX OEL
	-	(STEL):		

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility
- solid
 pellets, powder
 GREY
 very faint
 Not determined
 not applicable
 insoluble
- Evaporation rate Specific Gravity Bulk density Vapour pressure Vapour density pH
- Not applicable
 Not determined
 Not established
 not applicable
 not applicable
 not applicable

10. STABILITY AND REACTIVITY

Stability	The product is stable if stored and handled as prescri	bed.
Hazardous Polymerization	Will not occur.	
Conditions to avoid	Keep away from oxidizing agents and open flame. T decomposition, do not overheat.	o avoid thermal



MATERIAL SAFETY DATA SHEET Novablend 2677 LIGHT GRAY (Boreal)

 Version Number 1.0
 Page 5 of 8

 Revision Date
 04/10/2013

 Incompatible Materials
 : Incompatible with strong acids and oxidizing agents., Avoid contact with acetal homopolymers and acetal copolymers during processing.

Hazardous decomposition products	:	Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible. Prolonged heating (approximately 30 minutes or more) above 392 °F (200 °C) or short term heating at 482 °F (250 °C) may result in product decomposition and evolution of carbon monoxide and hydrogen chloride.
		hydrogen chloride.

11. TOXICOLOGICAL INFORMATION

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

CAS-No.	Chemical Name	Effect	Target Organ
57583-35-4	8-Oxa-3,5-dithia-4-	Irritant	Eyes, Skin.
	stannatetradecanoic acid,		
	10-ethyl-4,4-dimethyl-7-		
	oxo-, 2-ethylhexyl ester		
57583-34-3	Stannane, methyltris(2-	Irritant	Eyes, Skin.
	ethylhexyloxycarbonylmet		
	hylthio)-		
8007-18-9	Nickel antimony yellow	Irritant	Eyes, Skin.
	rutile (C.I. Pigment		
	Yellow 53)		
		sensitizer	Skin.
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.

LC50 / LD50

This product contains the following components which, in their pure form, have the following toxicity data:

CAS-No.	Chemical Name	Route	Value	Species
57583-34-3	Stannane, methyltris(2- ethylhexyloxycarbonylmet hylthio)-	Oral LD50	920 mg/kg	rat
1592-23-0	Calcium stearate	Oral LD50	> 10 gm/kg	rat

Carcinogenicity

This product contains the following components which, in their pure form, have the following carcinogenicity data:

CAS-No.	Chemical Name	OSHA	IARC	NTP
8007-18-9	Nickel antimony yellow rutile	no	1	no
	(C.I. Pigment Yellow 53)			
13463-67-7	Titanium dioxide	no	2B	no

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MATERIAL SAFETY DATA SHEET Novablend 2677 LIGHT GRAY (Boreal)

Version Number 1.0 Revision Date 04/10/2013 Page 6 of 8 Print Date 4/10/2013

IARC Carcinogen Classifications:1 - The component is carcinogenic to humans.2A - The component is probably carcinogenic to humans.

2B - The component is productly carcinogenic to humans.

NTP Carcinogen Classifications:

1 - The component is known to be a human carcinogen.

2 - The component is reasonably anticipated to be a human carcinogen.

Additional Health Hazard Information:

Nickel antimony yellow rutile (C.I. Pigment Yellow 53) 8007-18-9 Skin sensitizer "nickel itch", with pulmonary, brain, liver, kidney and muscle effects.

12. ECOLOGICAL INFORMATION

Not readily biodegradable. Adverse ecological impact is not known or expected under normal use. no data available not applicable 3. DISPOSAL CONSIDERATIONS Like most thermoplastic plastics the product can be recycled. Where possible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations. Recycling is preferred when possible. The generator of waste
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4. TRANSPORT INFORMATION
Not regulated for transportation.
Not regulated for transportation.
Not regulated for transportation.
S. REGULATORY INFORMATION

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MATERIAL SAFETY DATA SHEET Novablend 2677 LIGHT GRAY (Boreal)

Version Number 1.0 Revision Date 04/10/2013 Page 7 of 8 Print Date 4/10/2013

TSCA Status	: All componen TSCA Invento		luct are liste	d on or exer	mpt from the	
US. EPA CERCLA Hazardous	Substances (40 CFR	302)				
not applicable						
not applicable						
California Proposition : WARNING! This product contains a chemical known to the State of California to cause cancer.						te of
SARA Title III Section 302 Ex	tremely Hazardous S	Substance				
	-		1			
Unless specific chemicals are i	dentified under this s	section, this pr	oduct is Not	Applicable	e under this re	gulation
SARA Title III Section 313 To	oxic Chemicals:					
Unlass specific chemicals are i	dontified under this s	vaction this n	oduct is Not	Applicable	under this re	gulation
Chemical Name	Unless specific chemicals are identified under this sectio Chemical Name				Weight percent	
NICKEL COMPOUNDSNI		80	8007-18-9		0.10 - 1.00	
COMPOUNDSANTIMON	COMPOUNDS					
Canadian Regulations:						
National Pollutant Rele	ase Inventory (NPRI))				
Chemical Name		CAS-No.		eight	NPRI ID#	
Nickel antimony yellow ruti	le (C.I. Pigment	8007-18-9		0 - 1.00		-
Yellow 53)				0 - 1.00		-
			0.1	0 - 1.00		J
WHMIS Classification	: D2A					
WHMIS Ingredient Dis	alogura List					
CAS-No. 57583-34-3						
DSL : All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.						
	-	-				
National Inventories:	-	-				

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MATERIAL SAFETY DATA SHEET Novablend 2677 LIGHT GRAY (Boreal)

Version Number 1.0 Revision Date 04/10/2013 Page 8 of 8 Print Date *4/10/2013*

Australia AICS	: Not determined
China IECS	: Not determined
Europe EINECS	: Listed
Japan ENCS	: Not determined
Korea KECI	: Not determined
Philippines PICCS	: Not determined

16. OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.