Section 1: Product and Company Identification:

1.1 Product Identifier

Product Form:	Mixture
Identification of Substance:	Polyester Resin, Antimony Pentoxide
Product Name:	NYACOL® APE1540
Synonym:	Antimony Pentoxide Dispersion / APE1540
CAS Number:	1314-60-9
Index Number:	051-003-00-9
EINECS Number:	215-237-7
REACH Registration Number:	01-2119918494-33-0001
Formula:	Sb_2O_5

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use:	Recommended for use as a flame retardant additive.
Restrictions on Use:	For industrial use only, not for food, drug or home use.

1.3 Details of the supplier of the safety data sheet

Company Identification:	Nyacol Nano Technologies, Incorporated Megunko Road, P.O. Box 349, Ashland, MA 01721 U.S.A. +1 508-881-2220
Email Contact:	info@nyacol.com
Internet:	www.nyacol.com

1.4 Emergency telephone number

In Case of Emergency:	USA/Canada CHEMTREC: +1 (703) 527-3887 International CHEMTREC: +1 (703) 741-5970 24 Hours/Day: 7 Days/Week

Section 2: Hazard(s) Identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin irritation, Category 2 - H315: Causes skin irritation.
Serious eye damage, Category 1 - H318: Causes serious eye damage.
Skin sensitization, Category 1 - H317: May cause an allergic skin reaction.
Reproductive toxicity, Category 2 - H361: Suspected of damaging fertility or the unborn child.
STOT, Single Exposure, Category 3, Central Nervous System - H336: May cause drowsiness or dizziness.

2.1.1 Classification according to Regulation (EC) No. 1272/2008 (CLP)

Skin irritation, Category 2 - H315: Causes skin irritation.
Serious eye damage, Category 1 - H318: Causes serious eye damage.
Skin sensitization, Category 1 - H317: May cause an allergic skin reaction.
Reproductive toxicity, Category 2 - H361: Suspected of damaging fertility or the unborn child.
STOT, Single Exposure, Category 3, Central Nervous System - H336: May cause drowsiness or dizziness.

2.2 Label Elements

According to Regulation EC No 1272/2008

Signal Word: DANGER

Hazard determining components of labelling: Isophthalic acid polyester resin with diethylene glycol, adipic acid, maleic anhydride, and 1,2 propanediol
Amines, C12-14-tert-alkyl, ethoxylated
Potassium 2-ethylhexanoate

Hazard Statement(s):

H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H336: May cause drowsiness or dizziness.
H361: Suspected of damaging fertility or the unborn child.

Precautionary Statement(s):

P201 Obtain special instructions before use.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P501 – Dispose of contents/container in accordance with local/regional/national/international regulations.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

2.3 Other Hazards

Antimony pentoxide does not meet the criteria for a PBT or vPvB substance.

2.4 Unknown acute toxicity (GHS US)

No further relevant information available.

Section 3: Composition / Information on Ingredients

3.1 Chemical characterization: Mixtures

Description: Mixture consisting of the following components.

Hazardous Component Name:	Product Identifier	Classification	Percent By Weight
Isophthalic Acid Polyester Resin with Diethylene Glycol, Adipic Acid, Maleic Anhydride, and 1,2 Propanediol (Polymer):	CAS No. 61224-63-3	Skin Irrit. 2; H315 STOT SE 3; H336 Eye Irrit. 2; H319 Acute Tox. 4; H332	25 – 40
Amines, C_{12}-C_{14}-tert-alkyl, ethyoxylated:	CAS No. 73138-27-9	Acute Tox. 4; H302 Acute Tox. 3; H311 Eye Dam. 1; H318 Skin Sens. 1; H317 Skin Irrit. 2; H315	1 – 5
Potassium 2-ethylhexanoate: REACH: 05-2117294611-42-0000	CAS No. 3164-85-0 EC: 221-625-7	Eye Dam. 1; H318 Repr. 2; H361 Skin Irrit. 2; H315	5 – 10
Diethylene glycol: REACH: 05-2117294614-36-0000	CAS No. 111-46-6 EC: 203-872-2 Index: 603-140-00-6	Acute Tox. 4, H302	1 – 5
Non-hazardous Component Name:	**Product Identifier**	**Classification**	**Percent By Weight**
Antimony Pentoxide: REACH: 01-2119918494-33-0001	CAS No. 1314-60-9 EC: 215-237-7 Index: 051-003-00-9	Not classified	40
Unsaturated Polyester Resin (Polymer): REACH: 05-2117294616-32-0000	Unsaturated polyester resin	Not classified	10 – 15

Impurities:	Present at a level below that to be taken into account for classification.
Stabilizing Additives:	None.

The supplier currently has no knowledge on additional ingredients that are classified and that contribute to the classification of this substance.

See Section 16 for a list of hazards if identified above.

Section 4: First-Aid Measures

4.1 Description of first aid measures

Eye Contact:	Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of the eye and lids with water. Get medical attention.
Skin Contact:	In case of contact, immediately flush skin with plenty of water for several minutes. Remove contaminated clothing. Get medical attention if skin irritation or rash develops.
Inhalation:	If inhaled, remove to fresh air. If breathing becomes difficult, seek medical attention immediately. If breathing has stopped, give artificial respiration. Maintain airway and give oxygen if available. Treat symptomatically.
Ingestion:	Immediately give several glasses of water. DO NOT induce vomiting unless directed by a medical professional. If vomiting occurs, keep head below hips to reduce the risk of aspiration. Give fluids again. Never give anything by mouth to a person who is unconscious or convulsing. Get medical attention.
First Aid Facilities:	Eye wash station.
Advice to Physicians:	No further relevant information available.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed.

Obtain medical assistance if swallowed, if eye or skin irritation persists or if breathing is difficult.

Section 5: Fire-Fighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Media:	Water (not direct high pressure), dry powder, foam, carbon dioxide.
Unsuitable extinguishing media:	No further relevant information available.

5.2 Special hazards arising from the substance or mixture

Flammability of the product:	Material will burn in a fire.
Special Hazard Arising from the Chemical:	No further relevant information available.
Fire Hazard:	No further relevant information available.
Explosion Hazard:	No further relevant information available.
Reactivity:	No further relevant information available.

5.3 Advice for firefighters

Special Protective Equipment for Fire-fighters:	Wear standard full firefighter turn-out gear (full bunker gear) and respiratory protection (SCBA).

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Eye protection and impervious gloves. Avoid mist formation. Avoid breathing mist or fumes. An approved air-purifying respirator should be worn if mist or fumes are present.

6.1.1 For non-emergency personnel

Wear protective equipment. Keep unprotected persons away. Avoid inhalation of mist or fumes, avoid contact with skin and eyes.

6.2 Environmental precautions

Inform respective authorities in case product reaches water or sewage system. Water contamination should be avoided. Although the substance is not classified as dangerous to the environment, it is advised that in the event of an accidental release the product should be prevented from reaching the sewage system or any water course and penetrating soil. Dispose of spilled material in accordance with the relevant regulations.

6.3 Methods and material for containment and cleaning up

Contain spill or leak with sand, clay or absorbents. Recover liquid for recycle or disposal. Do not allow spills into sewers or surface waters. Place absorbents, waste products and contaminated soil into containers for disposal.

6.4 Reference to other sections

For more information on exposure controls and personal protection or disposal considerations, check section 8 and 13 of this SDS.

Section 7: Handling and Storage

7.1 Precautions for safe handling

Minimum feasible handling, and temperatures should be maintained. Avoid generating mist or aerosols during use. Ensure good ventilation/exhaustion at the workplace.

7.1.1 Protective measures

As a precautionary measure, the wearing of standard work gear is suggested.

7.1.2 Advice on general occupational hygiene

Avoid inhalation, ingestion and contact with eyes or skin. General occupational hygiene measures are required to ensure a safe handling of the substance. These measures involve good personal and housekeeping practices (i.e. regular cleaning with suitable cleaning devices), no eating, drinking and smoking at the workplace and wearing standard working clothes and shoes unless otherwise stated. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Shower and change clothes at end of work shift. Do not wear contaminated clothing at home.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool, dry area. Do not freeze. Keep in closed container. Store only in the original container. Provide solvent resistant, sealed floor.

7.3 Specific end use(s)

No further relevant information available.

Section 8: Exposure Controls / Personal Protection

8.1 Control Parameters

8.1.1 National Limit Values

Antimony pentoxide CAS# 1314-60-9

Country	Occupational exposure limit (as Sb)	Maximum exposure time	Date	Title	Reference
UK	0.5 mg/m³ (as Sb)	8h TWA	2011	Antimony and compounds	Health and Safety Executive- http://www.hse.gov.uk/pubns/priced/eh40.pdf

Germany	Not established		2009	Antimony and its inorganic compounds (inhalable fraction)	Senate Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (MAK Commission): http://www.dfg.de/en/dfg_profile/statutory_bodies/senate/health_hazards/index.html
Finland	0.5 mg/m³	8h TWA	2009	Antimony and its compounds	The Ministry of Social Affairs and Health- http://pre20090115.stm.fi/hm1113394626349/passthru.pdf
Belgium	0.5 mg/m³ (as Sb)	8h TWA	2010	Antimony and its compounds	Service public fédéral Emploi, Travail et Concertation sociale: http://www.emploi.belgique.be/WorkArea/showcontent.aspx?id=23914
France	0.5 mg/m³ (as Sb)	8h TWA	2012	Antimony and its compounds	Institut National de Recherche et de Sécurité - http://www.inrs.fr/accueil/produits/mediatheque/doc/publications.html?refINRS=ED%20984
Spain	0.5 mg/m³ (as Sb)	8h TWA	2010	Antimony and antimony compounds	http://www.insht.es/InshtWeb/Contenidos/Documentacion/TextosOnline/Valores_Limite/Limites2010/LEP%202010%20ActualizadoMayo(1).pdf
Austria	0.5 mg/m³ (as Sb)	8h TWA	2011	Antimony compounds	http://www.arbeitsinspektion.gv.at/NR/rdonlyres/F173280B-D4FB-44D2-8269-8DB2CB1D2078/0/GKV2011.pdf

2,2"-oxydiethanol, CAS# 111-46-6

Value Type (Form of exposure)	Control Parameters	Basis	Peak-Limit: Excursion Factor (Category)
AGW (Vapor and Aerosols)	10 ppm; 44 mg/m3	DE TRGS 900	4: (II)
Further Information: Senate commission for the review of compounds at the work place dangerous for the health (MAK commission)., Sum of vapor and aerosols., When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			

8.1.2 PNECs and DNELs - Antimony Pentoxide (1314-60-9)

DNEL (Derived No Effect Level)		
Descriptor	**Route of Exposure/Environmental protection target**	**DNEL**
	Inhalation - Long term/systemic effects	10 mg/m^3

PNEC (Predicted No Effect Concentration)		
Descriptor	**Route of Exposure/Environmental protection target**	**PNEC**
	Freshwater	0.113 mg Sb/L
	Marine	0.0113 mg Sb/L
	Sediment freshwater	7.8 mg Sb/kg wwt
	Sediment marine	1.56 mg Sb/kg wwt
	Soil	37 mg Sb/kg dw (32.6 mg Sb/kg wwt)
	STP (Sewerage Treatment Plant)	2.55 mg Sb/L

8.2.3 Environmental Exposure Controls

Use exhaust ventilation to keep airborne concentrations below exposure limits. The product should be recycled or solidified for disposal in a landfill approved for chemical waste or burned in an incinerator with scrubber approved for chemical waste. Product that becomes a waste material should be tested by the EPA TCLP test for disposal status.

Hygiene Measures:	Change contaminated clothing. Wash hands after working with substance.
Respiratory:	When respiratory protection is required, or concentrations unknown, use approved air-purifying respirator with organic vapor cartridge.
Hands:	Wear impervious gloves such as neoprene.
Eyes:	Wear approved safety glasses.
Skin:	Wear clean body-covering clothing; impervious gloves such as neoprene. Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry-cleaned.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance (Physical State, Color):	Viscous, tan liquid. The product is an organic liquid-based material.
Upper/lower flammability or explosive limits:	Not determined.
Volatile by Weight:	Not volatile.
Odor:	Sweet.
Vapor Pressure:	Not applicable.
Odor Threshold:	Not applicable.
Vapor Density:	Not determined.
pH:	Not applicable.
Density:	1600 kg/m^3
Melting Point:	Not determined.
Solubility in Water:	Not soluble.
Initial boiling point and boiling range:	>232°C
Flashpoint:	101°C open cup.
Evaporation Rate:	Slow.
Flammability (solid, gas):	Product is not self-igniting.
Partition Coefficient:	Not determined. Negligible solubility in water. Appreciable solubility in oil.
Auto-ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
Viscosity:	Not determined.
Specific Gravity:	1.6
Freezing Point:	Not available.
Explosion Limits:	Product is not explosive.
Oxidizing Properties:	Not an oxidizer.

9.2 Other information

No further relevant information available.

Section 10: Stability and Reactivity

10.1 Reactivity

No further relevant information available.

10.2 Chemical Stability

Stable under normal ambient and anticipated storage and handling conditions.

10.3 Possibility of hazardous reactions

Use of the product under acidic reducing conditions may form the poisonous gas stibine.

10.4 Conditions to avoid

Prolonged storage at elevated temperatures.

10.5 Incompatible materials

Strong acids and/or oxidizers. Use of the product under acidic reducing conditions may form the poisonous gas stibine.

10.6 Hazardous decomposition products

Oxides of nitrogen and carbon.

Section 11: Toxicological Information

11.1 Information on toxicological effects

Antimony pentoxide, CAS #1314-60-90

Toxicokinetics	The oral absorption of soluble pentavalent antimony compounds is less than 1% (Felicetti, 1974; ICRP, 1981). Together with particle-size derived respiratory deposition and 100% absorption from the pulmonary fraction, an inhalation absorption factor of 0.7% may be assumed. Based on read-across and analogies with other metals HERAG (2007), a conservative default dermal absorption factor of 1% is appropriate for diantimony pentoxide.
Acute toxicity	**Oral:** LD50 rat > 2000 mg/kg bw (Robertson, 2005) The classification criteria according to regulation (EC) 1272/2008 as acutely toxic are not met for APO since the ATE is above 2000 mg/kg body weight, hence no classification required. **Inhalation:** LC50 rat> 5.4 mg/L (Leuschner, 2010) The classification criteria according to regulation (EC) 1272/2008 as acutely toxic are not met for sodium hexahydroxoantimonate (SHHA) (CAS 33908-66-6) since the ATE for dusts and mists is above 5.0 mg/L, hence no classification required. Based on read across from SHHA, APO does not require a classification as acutely toxic, inhalation. **Dermal:** APO does not require a classification as acutely toxic via dermal route. Conduct of an acute dermal toxicity study is unjustified as inhalation of the substance is considered as major route of exposure and physicochemical properties of the substance do not suggest a significant rate of absorption through the skin (cf. Annex VIII section 8.5 Column 2 of regulation (EC) 1907/2006).
Skin corrosion/irritation	Based on available data, the classification criteria as skin irritant are not met for APO (Robertson, 2005). Since APO is not irritating to the skin, eyes or the respiratory tract, corrosive properties can be excluded and the classification criteria are not met.
Serious eye damage/irritation	Based on available data, the classification criteria as eye irritant are not met for sodium hexahydroxoantimonate (SHHA) (CAS 33908-66-6) (Leuschner, 2009). Based on read across from SHHA, APO does not require a classification as eye irritant.
Respiratory or skin sensitization	Based on available data, the classification criteria as skin sensitizer are not met for diantimony pentoxide (Robertson, 2005). Based on the results of the histopathological and macroscopic investigations and on an industry survey, sodium hexahydroxoantimonate (SHHA) (CAS 33908-66-6) does not require a classification for respiratory irritation/sensitization. Based on read across from SHHA, and an industry survey, APO does not require classification for respiratory irritation/sensitization.

Germ cell mutagenicity	Based on available data, sodium hexahydroxoantimonate (SHHA) (CAS 33908-66-6) does not require a classification as germ cell mutagen. SHHA (CAS# 33908-66-6) did not induce micronuclei in cultured human lymphocytes (Whitwell, 2010) and gene mutation in the tk locus of the L5178Y mouse lymphoma cell line (Stone, 2010). Therefore SHHA is considered as non-clastogenic and non-mutagenic. Based on read across from SHHA, APO does not require a classification as germ cell mutagen.
Carcinogenicity	No data indicating any concern for carcinogenicity.
Reproductive toxicity	Data lacking - testing proposal issued in the REACH registration dossier of sodium hexahydroxoantimonate (CAS 33908-66-6). Data will be read-across to APO.
STOT-single exposure	Based on available data, the classification criteria as STOT, single exposure, oral and inhalation are not met for APO since no reversible or irreversible adverse health effects were observed immediately or delayed after exposure and no effects were observed at the guidance value.
STOT-repeated exposure	Data lacking - testing proposal issued in the REACH registration dossier of sodium hexahydroxoantimonate (CAS 33908-66-6). Data will be read-across to APO.
Aspiration hazard	APO as an inorganic metal oxide is void of a low surface tension effect and as a solid does have a very high viscosity, i.e. an aspiration hazard can safely be excluded. Based on available data, the classification criteria are not met.

Amines, C12-C14-tert-alkyl, ethyoxylated CAS #73138-27-9

Oral: LD50, Rat: 500-1830 mg/kg

Dermal: LD50, Rabbit, 515mg/kg

Skin corrosion/irritation:	Irritant for skin and mucous membranes.
Serious eye damage/irritation:	Strong irritant with the danger of severe eye injury.
Sensitization:	Sensitization possible by skin contact.
Inhalation:	Pneumoconiosis and upper airway inflammation.
Ingestion:	No further relevant information available.
Chronic Effects:	No further relevant information available.

Section 12: Ecological Information

12.1 Toxicity

Antimony metal and antimony containing compounds may dissolve and generate antimony ions (Vangheluwe et al., 2001). The environmental section will therefore discuss the fate of antimony in general.

Acute aquatic toxicity test results:		
Marine fish [*Pagrus major*]	96 h LC50	6.9 mg Sb/L (Takayanagi, 2001)
Freshwater fish [*Pimephales promelas*]	96 h LC50	14.4 mg Sb/L (Brooke et al, 1986)
Invertebrates [*Chlorohydra viridissimus*]	96 h LC50	1.77 mg Sb/L (TAI, 1990)
Algae [*Pseudokirchneriella subcapitata*]	72 h ErC50 (growth rate)	> 36.6 mg Sb/L (Heijerick et al, 2004)
Plants [*Lemna minor*]	4 d EC50	> 25.5 mg Sb/L (Brooke et al, 1986)
Chronic aquatic toxicity test results:		
Fish [*Pimephales promelas*]	28 d NOEC/LOEC (growth; length)	1.13/2.31 mg Sb/L (Kimball, 1978)
Invertebrates [*Daphnia magna*]	21 d NOEC/LOEC (reproduction)	1.74/3.13 mg Sb/L (Heijerick et al, 2003)

Algae [*Pseudokirchneriella subcapitata*]	72 h NOEC/LOEC (growth rate)	2.11/4.00 mg Sb/L (Heijerick et al, 2004)
Chronic sediment toxicity test results:		
Midge [*Chironomus riparius]*	14 d NOEC (growth)	78 mg Sb/kg ww (Heijerick et al, 2005)
Chronic terrestrial toxicity test results (values were determined in a soil spiked with Sb_2O_3 and aged for 31 weeks before testing):		
Soil invertebrates	NOEC	999 mg Sb/kg dw (Moser, 2007)
Plants	NOEC	999 mg Sb/kg dw (Smolders et al., 2007)
Soil microorganisms	NOEC	2930 mg Sb/kg dw (Smolders et al., 2007)
Toxicity tests for microorganisms (for STP)		
Aquatic microorganisms	NOEC	2.55 mg Sb/L (EPAS, 2005)
Inhibition of nitrification	EC50	27 mg Sb/L (EPAS, 2005)

12.2 Persistence and degradability

Whereas antimony formally meets the criterion for persistence based on the absence of any degradation, this criterion is considered not to be applicable to inorganic elements. In addition, under conditions of a standard EUSES lake and the median partition coefficient for suspended matter, Sb meets the criteria for rapid removal from the water column.

12.3 Bioaccumulative potential

Antimony does not meet the criteria for bioaccumulation: a BCF for aquatic organisms of 40 and a BSAF of 1 for earthworms are derived, and are all much lower than the threshold of 2,000 l/kg. Also, there is evidence to support that antimony does not biomagnify in the food chain. Therefore, antimony is not considered bioaccumulative (B) or very bioaccumulative (vB) based on the definitive criteria.

12.4 Mobility in soil

A log K_p of 2.07 has been determined for soil.

12.5 Results of PBT and vPvB Assessment

The PBT and vPvB criteria of Annex XIII to the Regulation do not apply to inorganic substances, such as antimony and its inorganic compounds. However, the available data have been compared to the criteria:
See 12.2 for (P) and 12.3 for (B). For (T): Chronic NOEC values are available for fish, invertebrates and algae (see Section 12). The lowest NOEC is 1.13 mg Sb/L for fish (Kimball, 1978). Antimony and antimony compounds do not meet any of the toxicity criteria based on carcinogenicity, mutagenicity or reproductive toxicity and there is no evidence of other chronic concerns. Therefore, antimony is not considered toxic (T) based on the definitive criteria. Antimony, and therefore APO, is not PBT or vPvB.

12.6 Other adverse effects

Antimony pentoxide is not expected to contribute to ozone depletion, ozone formation, global warming or acidification.

Section 13: Disposal Considerations

This information presented only applies to the materials as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Antimony pentoxide containing waste shall be handled as non-hazardous waste and removed by licensed waste removal company, incinerated or recycled in accordance with federal, state and local requirements. Sewage disposal is not recommended.
Suitable disposal of non-hazardous waste for manufacturing and industrial use: Disposal of wastes is possible via incineration (operated according to Directive 2000/76/EC on the incineration of waste) or landfilling (operated according to Reference Document on the Best available Techniques for Waste Industries of August 2006 and Council Directive 1999/31/EC and Council Decision 19 December 2002).
Suitable disposal of waste for professional use: Waste from end-of-life articles can be disposed of as municipal waste, except when they are separately regulated, like electronic devices, batteries, vehicles, etc. Disposal of wastes is possible via incineration (operated according to Directive 2000/76/EC on the incineration of waste) or landfilling (operated according to Reference Document on the Best available Techniques for Waste Industries of August 2006 and Council Directive 1999/31/EC and Council Decision 19 December 2002).

In the United States should the product become a waste, EPA TCLP test should be performed for disposal status.

Section 14: Transport Information

The product is not restricted for transportation.

Sections 14.1 - 14.4

Regulations

U.S. D.O.T.: Not regulated.

ICAO/IATA: Not regulated.

IMO/IMDG: Not regulated.

ADR: Not regulated.

14.5 Environmental Hazards

No further relevant information available.

14.6 Special precautions for user

No further relevant information available.

14.7 Transport bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

Section 15: Regulatory Information

15. 1 Safety, health and environmental regulations/legislation specific for the substance or mixture.

Worldwide Chemical Inventories

EINECS (EU):	All ingredients listed.
DSL (Canada):	All ingredients listed.
EPA TSCA Inventory (USA):	All ingredients listed.
CAS No. 1314-60-9:	AICS, ECL, ENCS, PICCS, SWISS, IECSC, VNECI
CAS No. 61224-63-3:	AICS, ENCS, KECI, VNECI
CAS No. 73138-27-9:	AICS, ENCS, IECSC, VNECI
Unsaturated polyester resin (Trade Secret):	AICS, ECL, PICCS, IECSC, VNECI
SARA Section 311/312 (40 CFR 370) Hazard:	Respiratory or skin sensitization; serious eye damage or eye irritation; skin corrosion or irritation; specific target organ toxicity (single); reproductive toxicity
SARA Section 313:	This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and of 40 CFR 372:

Chemical Name:	CAS #:	Weight Percent:
Antimony Pentoxide	1314-60-9	40

California Proposition 65:	No ingredients listed.

State Right-to-Know Laws:	Section 3 of this SDS lists all product components.
Technical Instructions (air):	Class III Share: 40.2%; NK Share: in 4.6%.
Water hazard class:	Water hazard class 2: hazardous for water.
WHMIS:	Class D, Division 2, material causing other toxic effects.

15. 2 Chemical safety assessment

A chemical safety assessment has been carried out for antimony pentoxide.

Section 16: Other Information

Full text for relevant hazard phrases from section 2 and section 3:
H302 - Harmful if swallowed
H311- Toxic in contact with skin
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H336 - May cause drowsiness or dizziness
H361 - Suspected of damaging fertility or the unborn child.

Antimony pentoxide is exempted from the group entry classification for antimony compounds (Annex 1 of Directive 67/548/EEC or Annex VI of Regulation (EC) 1272/2008; Index No. 051-003-009).

National Fire Protection Association (U.S.A.) 704 Hazard Rating:	Health-1, Flammability-1, Reactivity-0, Special-None
HMIS® Hazard Rating:	Health-1, Flammability-1, Reactivity-0, Protective Equipment - I; safety glasses, gloves, combination respirator.
Recommended Use:	The product is recommended for use as a flame retardant additive. Other uses have not been investigated and may have other hazards. For industrial use only, not for food, drug or home use.
Work Alert:	Workers using the product should read and understand this SDS and be trained in the proper use of this material.
Other Special Considerations:	None known.
SDS Prepared By:	Andrew Guzelian Nyacol Nano Technologies, Incorporated Telephone: 508-881-2220 U.S.A.
Revision Date:	March 5, 2020
Supersedes:	September 18, 2019

This SDS has been prepared with data from Nyacol Nano Technologies, Inc.'s laboratories, raw material suppliers, and government publications. Information herein is accurate to the best of our knowledge. Suggestions are made without warranty or guarantee of results. Before using, the user should determine the suitability of the products for the intended use, and the user assumes the risk and liability in connection therewith. We do not suggest violation of any existing patents or give permission to practice any patented invention without license.