

112000008535

SAFETY DATA SHEET

according to Regulation (EU) No. 1907/2006

Version 1.4

Revision Date 13.05.2009

Print Date 22.05.2012

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information

Trade name Use **TEXIN 285 000000**Production of moulded plastic articles

Company Bayer MaterialScience Limited 77/F The Center, 99 Queen's Road Central, Hong Kong

Tel: +852 28955888 Fax: +852 25768862 e-mail: productsafety@bayerbms.com TRANSPORTATION EMERGENCY: CALL CHEMTREC: 800-968-793 (Toll Free) NON-TRANSPORTATION: Emergency Phone: +886 - 933303193 In case product is handled in Mainland China: Tel: +86 21 67120219

2. HAZARDS IDENTIFICATION

Not a product dangerous for health or the environment according to the definition of EC Directives 2006/121/EC or 1999/45/EC and their valid adaptations and derived national regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Thermoplastic polyurethane

4. FIRST AID MEASURES

In case of skin contact: CONTACT WITH THE HOT MELT: Cool immediately with plenty of water. Do not remove product crusts which may have formed neither forcibly nor by applying any solvents to the skin involved. To obtain treatment for possible burns, and appropriate skin care, seek medical advice immediately.

The following information refers to the handling of the product at room temperature. In case of skin contact wash affected areas thoroughly with soap and plenty of water.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water, Foam, Dry chemical



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Burning releases carbon monoxide, carbon dioxide, oxides of nitrogen and traces of hydrogen cyanide. In the event of fire and/or explosion do not breathe fumes.

Firemen must wear self-contained breathing apparatus.

Do not allow contaminated extinguishing water to enter the soil, ground-water or surface waters.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Put on protective equipment (see chapter 8). Granules - slip hazard! Ensure adequate ventilation/exhaust extraction. Keep unauthorized persons away.

Environmental precautions: Do not flush into surface water or sanitary sewer system.

Methods for cleaning up: Use mechanical handling equipment. Avoid dust formation. Sweep up and shovel into suitable containers for disposal.

Additional advice: For further disposal measures see chapter 13.

7. HANDLING AND STORAGE

Handling

Adequate ventilation and if necessary, effective exhaust must be provided at the workplace when opening fresh drums, drying granules and processing the material. Under recommended processing conditions small amounts of emissions may occur.

Provided good ventilation and/or local exhaust systems are used, the Workplace Exposure Limit(s) stated in Chapter 8 should not be exceeded. Dust must be removed by effective exhaust ventilation.

Storage

Keep container tightly closed and dry.

VCI storage class (VCI = German Association of the Chemical Industry): 11

Storage temperature: < 40 °C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

The regulations for the substances listed below must be observed when processing this product, particularly if processing takes place at elevated temperatures. In our experience the provision of effective fresh-air and exhaust ventilation equipment at the points where vapors may be generated will ensure compliance with the tolerance limits quoted below.



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Substance	CAS-No.	Basis	Туре	Value	Ceiling Limit Value	Remarks
tetrahydrofuran	109-99-9	TRGS 900		50 ppm 150 mg/m3	2	If in compliance with the OEL and BEL values, then there should be no risk of reproductive damage.
tetrahydrofuran	109-99-9	TRGS 900	Skin			Dermal absorption possible
tetrahydrofuran	109-99-9	TRGS 900	STEL CL			Category I: substances for which the localized effect has an assigned OEL respiratory passages.
tetrahydrofuran	109-99-9	EU ELV	TWA	50 ppm 150 mg/m3		Dermal absorption possible
tetrahydrofuran	109-99-9	EU ELV	STEL	100 ppm 300 mg/m3		
General limiting value of dust		TRGS 900		10 mg/m3	2	inhalable fraction
General limiting value of dust		TRGS 900		3 mg/m3	2	alveolar fraction
General limiting value of dust		TRGS 900	STEL CL			Category II: substances with a resorptive effect.

Respiratory protection:

In case of dust formation use respiratory equipment with filter type particle filter P1 according to EN 143.

Hand protection:

Suitable materials for safety gloves; EN 374-3: Polyvinyl chloride - PVC (>= 0.5 mm) Contaminated and/or damaged gloves must be changed.

Eye protection:

Wear eye/face protection.

Skin and body protection:

Wear suitable protective clothing.

Further protective measures:

Do not breathe dust/vapor. Grease skin.

Hygiene measures:

Keep away from foodstuffs, drinks and tobacco. Wash hands and face before breaks and at the end of work. Keep working clothes separately. Change contaminated clothing.



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9. PHYSICAL AND CHEMICAL PROPERTIES

Colour:	different according to colouration
Form:	granular
Odour:	almost odourless
Softening point:	> 120 °C
Density:	ca. 1,2 g/cm ³
Bulk density:	500 - 700 kg/m3
Vapour pressure:	not applicable
Viscosity, dynamic:	not applicable
Water solubility:	practically insoluble
pH:	not applicable
Ignition temperature:	> 210 °C
Autoignition temperature:	not applicable
Explosion limits:	not applicable

10. STABILITY AND REACTIVITY

Hazardous reactions: No hazardous reactions observed.

Hazardous decomposition products: Smouldering or incomplete combustion leads to the formation of toxic gas mixtures consisting mainly of CO, CO2 and nitrogen oxides.

Thermal decomposition: Decomposition begins at 230 °C.

11. TOXICOLOGICAL INFORMATION

Under recommended processing conditions small amounts of isocyanates may be emitted. Exceeding the recommended processing temperatures leads to a significant increase in the amount of isocyanate vapor generated.

Over-exposure entails a risk of concentration-dependent inhalatory irritation and/or sensitization by isocyanates (delayed appearance of difficult breathing, coughing, asthma is possible).

The regulations for the substances listed below must be observed when processing this product, particularly if processing takes place at elevated temperatures.

Substance Isocyanates (all, as - NCO)	CAS-No.	R-phrase(s) R42 May cause sensitization by inhalation.
tetrahydrofuran	109-99-9	R36/37 Irritating to eyes and respiratory system.



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Additional information:

According to our experience and information the product has no harmful effects on health if properly handled.

12. ECOLOGICAL INFORMATION

Do not allow to escape into waterways, wastewater or soil.

Additional information on ecotoxicology:

The product is practically insoluble in water. In view of its consistency and insolubility in water, no ecological problems are to be expected if the product is properly handled. The product is not readily biodegradable.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with applicable international, national and local laws, ordinances and statutes. For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

After containers have been emptied as thoroughly as possible (e.g. by pouring, scraping or draining until "drip-dry"), they can be sent to an appropriate collection point set up within the framework of the existing take-back scheme of the chemical industry. Containers must be recycled in compliance with national legislation and environmental regulations.

The product is suitable for mechanical recycling. After appropriate treatment it can be remelted and reprocessed into new moulded articles. Mechanical recycling is only possible if the material has been selectively retrieved and carefully segregated according to type.

14. TRANSPORT INFORMATION

ADR/RID	
ADNR	
ΙΑΤΑ	
IMDG	
Other information	: Not dangerous cargo. Slight smell. Keep dry. Keep separated from foodstuffs.



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15. REGULATORY INFORMATION

No labeling necessary according to EC Directives 2006/121/EC or 1999/45/EC and their valid adaptations and derived national regulations.

National legislation

Water contaminating class (Germany): nw not water endangering (in accordance with Annex 1 to the Directive on Water-Hazardous Substances)

16. OTHER INFORMATION

Further 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.

MIDNIGHT

SHIPPED FROM:

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MATERIAL SAFETY DATA SHEET PAGE

DATE: 2/26/08 PAGE: 1

MILFORD - CLARIANT 745 MC COLLEY STREET MILFORD DE 19963 PHONE: 302 422 3021

EMERGENCY TELEPHONE: 269-753-8434

*

CLARIANT WEBSITE: HTTP://WWW.CLARIANTMASTERBATCH.COM

PRODUCT DESCRIPTION: PUR TEXIN 285 025.00:1 NAVY BLUE PRODUCT CODE: 00055804

AURADONICS INC 439 ST.MIHIEL DRIVE RIVERSIDE, NJ 080750000

***** MATERIAL SAFETY DATA SHEETS *****

THE ATTACHED MATERIAL SAFETY DATA SHEET (MSDS) IS AN IMPORTANT DOCUMENT. THE OSHA HAZARDOUS COMMUNICATION STANDARD REQUIRES US TO FORWARD A MSDS PRIOR TO OR ACCOMPANYING AN INITIAL SHIPMENT OF A PRODUCT AND THE "STANDARD" REQUIRES YOUR COMPANY TO KEEP THE MSDS ON FILE. * * IF YOU ARE NOT RESPONSIBLE FOR HEALTH AND SAFETY IN YOUR COMPANY PLEASE INSURE THAT YOUR HEALTH AND SAFETY MANAGER RECEIVES THIS DOCUMENT.

THANK YOU.

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS)

HEALTH>1
FLAMMABILITY>1
REACTIVITY>0
PERSONAL PROTECTION>B

DATE: 2/26/08 MATERIAL SAFETY DATA SHEET SHIPPED FROM: PAGE : 2 MILFORD - CLARIANT 745 MC COLLEY STREET MILFORD DE 19963 PHONE: 302 422 3021 EMERGENCY TELEPHONE: 269-753-8434 CLARIANT WEBSITE: HTTP://WWW.CLARIANTMASTERBATCH.COM PRODUCT DESCRIPTION: PUR TEXIN 285 025.00:1 NAVY BLUE PRODUCT CODE: 00055804 AURADONICS INC 439 ST.MIHIEL DRIVE RIVERSIDE, NJ 080750000 SECTION I - PRODUCT INFORMATION: PRODUCT DESCRIPTION: PUR TEXIN 285 025.00:1 NAVY BLUE PRODUCT CODE: 00055804 VERSION NUMBER: 6 REVISION DATE: 2/26/08 CHEMICAL NAME/FAMILY: THERMOPLASTICS RESIN(S) + COLORANT -----SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION: ------THE FOLLOWING INFORMATION PROVIDED ON THE BELOW HAZARDOUS PIGMENT(S) AND ADDITIVE (S) APPLIES TO THEM IN THE PURE DRY FORM. THE FORM OF THE PIGMENT AND ADDITIVE PROVIDED TO YOU IS ENCAPSULATED IN PLASTIC, AND THEREFORE, THE LIKELIHOOD OF EXPOSURE IS MUCH LESS, EVEN TO THE POINT OF NEGLIGIBLE. WE THEREFORE CONSIDER THE LEVEL OF HAZARD TO BE NEGLIGIBLE. OSHA ACGIH CAS
 MBER
 DESCRIPTION
 MG/M3

 3463-67-7
 TITANIUM DIOXIDE (DUST)
 10.0

 21645-51-2
 ALUMINUM HYDROXIDE (AS AL) N.E.
 7631-86-9
 SILICON DIOXIDE, AMORPHOUS
 6.0
PEL TLV DOES NOT OTHER NUMBER MG/M3 MG/M3 LIMITS EXCEED(%) 13463-67-7 10.0 -.56 10.0 -.05 10.0 1000 .06 LIMESTONE (TOTAL DUST) 15.0 1317-65-3 10.0 5.0 20.02 14808-60-7 SILICA, CRYSTALLINE QUARTZ 0.1 7-11-4_____STEARIC ACID N.E. 0.1 57-11-4 STEARIC ACID 110-30-5 ETHYLENE BISSTEARAMIDE -.06 N.E. N.E. N.E. .40 N.E. N.E. -4.00 SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS: ---------BOILING POINT: NA SPECIFIC GRAVITY: 1.1 - 1.3 VAPOR PRESSURE: NA MELTING POINT: >350C VAPOR DENSITY: NA EVAPORATION RATE: NA SOLUBILITY IN WATER: INSOULBLE APPEARANCE AND ODOR: COLORED PLASTIC PELLET - NO SIGNIFICANT ODOR

DATE: 2/26/08 MATERIAL SAFETY DATA SHEET SHIPPED FROM: PAGE : 3 MILFORD - CLARIANT 745 MC COLLEY STREET MILFORD DE 19963 PHONE: 302 422 3021 EMERGENCY TELEPHONE: 269-753-8434 CLARIANT WEBSITE: HTTP:\\WWW.CLARIANTMASTERBATCH.COM PRODUCT DESCRIPTION: PUR TEXIN 285 025.00:1 NAVY BLUE PRODUCT CODE: 00055804 SECTION IV - FIRE AND EXPLOSION HAZARD DATA: FLASH POINT (METHOD USED) : THERE IS A COMPONENT IN THIS PRODUCT WITH A FLASH POINT OF 342 C. THE METHOD USED TO DETERMINE THIS IS: ASTM E136 ALL OTHER COMPONENTS USED IN THIS PRODUCT EITHER HAVE A HIGHER FLASH POINT OR ARE NOT COMBUSTIBLE AND DO NOT HAVE A FLASH POINT. EXTINGUISHING MEDIA: CARBON DIOXIDE ON PIGMENT; WATER ON FIRE IN SURROUNDING AREA. SPECIAL FIRE FIGHTING PROCEDURES: FIREFIGHTERS SHOULD WEAR FULL PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN THE PRESSURE DEMAND OR OTHER POSITIVE PRESSURE MODE. USE WATER SPRAY TO COOL EXPOSED CONTAINERS. AVOID USE OF DIRECT FULL PRESSURE STREAM OF WATER AS MOLTEN WAX MAY BE SPREAD TO IGNITION SOURCES OR CARRY FIRE TO OTHER FLAMMABLE MATERIALS. USE A WATER FOG OR FOAM TO CONTROL FIRE. UNUSUAL FIRE AND EXPLOSION HAZARDS: ELECTRICAL GROUNDING OF EQUIPMENT IS REQUIRED WHEN HANDLING POWDER TO PREVENT POSSIBLE DUST EXPLOSION. EMITS TOXIC FUMES UNDER FIRE CONDITIONS. ------_____ SECTION V - REACTIVITY DATA: STABILITY: STABLE -> X UNSTABLE -> STABILITY (CONDITIONS TO AVOID): AVOID EXPOSURE TO HEAT, SPARK, OR OPEN FLAME. INCOMPATILBILITY (MATERIALS TO AVOID) : STRONG OXIDIZERS, MOISTURE. HAZARDOUS DECOMPOSITION OR BYPRODUCTS: THERMAL DECOMPOSITION PRODUCTS MAY INCLUDE HAZARDOUS FUMES OF TITANIUM OXIDE. HAZARDOUS POLYMERIZATION: WILL OCCUR -> WILL NOT OCCUR -> X HAZARDOUS POLYMERIZATION (CONDITIONS TO AVOID): AVOID EXCESSIVE DUST IN VICINITY OF ELECTRICAL OR OTHER SPARK GENERATING

DATE: 2/26/08 MATERIAL SAFETY DATA SHEET PAGE : SHIPPED FROM: 4 MILFORD - CLARIANT 745 MC COLLEY STREET MILFORD DE 19 DE 19963 PHONE: 302 422 3021 EMERGENCY TELEPHONE: 269-753-8434 CLARIANT WEBSITE: HTTP://WWW.CLARIANTMASTERBATCH.COM PRODUCT DESCRIPTION: PUR TEXIN 285 025.00:1 NAVY BLUE PRODUCT CODE: 00055804 SECTION V - REACTIVITY DATA: (CONT) -----EQUIPMENT. AVOID EXTREME HEAT. SECTION VI - HEALTH HAZARD DATA: _____ HEALTH HAZARDS (ACUTE AND CHRONIC): HEALTH HAZARD: INHALATION SHORT TERM OVEREXPOSURE BY IHALATION TO TITANIUM DIOXIDE MAY CAUSE IRRITATION OF NOSE, THROAT, AND LUNGS WITH COUGH, DIFFICULTY BREATHING OR SHORTNESS OF BREATH. STUDIES SHOWED THAT EMPLOYEES WHO HAD BEEN EXPOSED TO TITANIUM DIOXIDE WERE AT NO GREATER RISK OF DEVELOPING LUNG CANCER THAN WERE EMPLOYEES WHO HAD NOT BEEN EXPOSED TO TITANIUM DIOXIDE. INHALATION OF AMORPHOUS SILICA MAY CAUSE DRYING OF MUCOUS MEMBRANES AND IRRITATION OF NOSE, THROAT, AND LUNGS WITH NOSEBLEEDS, COUGH AND DIFFICULTY BREATHING OR SHORTNESS OF BREATH. HEALTH HAZARD: SKIN MAY CAUSE IRRITATION TO SKIN HEALTH HAZARD: INGESTION SINGLE DOES ORAL TOXICITY IS EXTREMELY LOW. NO HAZARDS ANTICIPATED FROM SWALLOWING SMALL AMOUNTS INCIDENTAL TO NORMAL HANDLING OPERATIONS. HEALTH HAZARD: EYE CONTACT CONTACT WITH POWDERS OR DUSTS MAY CAUSE MECHANICAL IRRITATION. THERMAL PROCESSING FUMES/VAPORS MAY IRRITATE THE EYES. IS ANY CHEMICAL IN THIS PRODUCT AT A CONCENTRATION OF 0.1 % OR MORE CLASSIFIED AS A CARCINOGEN BY IARC, NTP, OR OSHA? YES SIGNS AND SYMPTOMS OF EXPOSURE: * THE FOLLOWING INFORMATION PROVIDED ON THE BELOW HAZARDOUS INGREDIENT(S) APPLIES TO THE INGREDIENT(S) IN THE PURE DRY FORM. THE FORM OF THE INGREDIENTS PROVIDED TO YOU IS ENCAPSULATED IN PLASTIC, AND THEREFORE, THE LIKELIHOOD OF EXPOSURE IS MUCH LESS, EVEN TO THE POINT OF NEGLIGIBLE. WE THEREFORE CONSIDER THE LEVEL OF HAZARD TO BE NEGLIGIBLE.

MATERIAL SAFETY DATA SHEET

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MILFORD - CLARIANT 745 MC COLLEY STREET MILFORD DE 19963 PHONE: 302 422 3021

EMERGENCY TELEPHONE: 269-753-8434

CLARIANT WEBSITE: HTTP://WWW.CLARIANTMASTERBATCH.COM

PRODUCT DESCRIPTION: PUR TEXIN 285 025.00:1 NAVY BLUE PRODUCT CODE: 00055804

SECTION VI - HEALTH HAZARD DATA: (CONT)

TITANIUM DIOXIDE: MAY CAUSE MILD AND TEMPORARY UPPER RESPIRATORY IRRITATION WITH COUGH AND SHORTNESS OF BREATH. PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE DRYING AND CRACKING OF THE SKIN IN SENSITIVE INDIVIDUALS. AMORPHOUS SILICA: MAY CAUSE EYE IRRITATION WITH DISCOMFORT, TEARING, OR BLURRING OF VISION. MAY CAUSE SLIGHT SKIN IRRITATION WITH DISCOMFORT OR RASH.

LIMESTONE: CAN BE IRRITATING TO THE RESPIRATORY TRACT. SYMPTOMS INCLUDE SNEEZING AND SLIGHT NOSE IRRITATION. MILD EYE IRRITATION, SYMPTOMS INCLUDE WATERING AND IRRITATION. MAY CAUSE MILD SKIN IRRITATION. REPEATED OR PROLONGED EXPOSURE MAY HAVE A DRYING EFFECT ON THE SKIN. SYMPTOMS INCLUDE REDNESS AND IRRITATION. INGESTION MAY RESULT IN INTESTINAL OBSTRUCTION AND/ OR CONSTIPATION. CHRONIC EXPOSURE MAY INCREASE THE RISK OF DEVELOPING PNEUMOCONIOSIS (LUNG DISEASE). THESE PRODUCTS CONTAIN CRYSTALLINE SILICA IARC HAS CONCLUDED THERE IS SUFFICIENT EVIDENCE IN HUMANS FOR

ETHYLENE BISSTEARAMIDE: MAY CAUSE IRRITATION OF EYES AND RESPIRATORY TRACT. SKIN CONTACT WITH HOT OR MOLTEN MATERIAL MAY CAUSE THERMAL BURNS.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

* THE FOLLOWING INFORMATION PROVIDED ON THE BELOW HAZARDOUS INGREDIENT(S) APPLIES TO THE INGREDIENT(S) IN THE PURE DRY FORM. THE FORM OF THE INGREDIENT(S) PROVIDED TO YOU IS ENCAPSULATED IN PLASTIC, AND THEREFORE, THE LIKELIHOOD OF EXPOSURE IS MUCH LESS, EVEN TO THE POINT OF NEGLIGIBLE. WE THEREFORE CONSIDER THE LEVEL OF HAZARD TO BE NEGLIGIBLE.

TITANIUM DIOXIDE: NONE KNOWN

LIMESTONE: NONE KNOWN

ETHYLENE BISSTEARAMIDE: NONE KNOWN

EMERGENCY FIRST AID: INHALATION

REMOVE TO CLEAN, FRESH AIR AND TREAT SYMPTOMATICALLY.

EMERGENCY FIRST AID: SKIN

REMOVE CONTAMINATED CLOTHING AND SHOES IMMEDIATELY. WASH WITH SOAP OR MILD

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MILFORD - CLARIANT 745 MC COLLEY STREET MILFORD DE 19963 PHONE: 302 422 3021	
EMERGENCY TELEPHONE: 269-753-8434 CLARIANT WEBSITE: HTTP:\\WWW.CLARIANTMASTERBATCH.COM	
PRODUCT DESCRIPTION: PUR TEXIN 285 025.00:1 NAVY BLUE PRODUCT CODE: 00055804	
SECTION VI - HEALTH HAZARD DATA: (CONT)	
DETERGENT AND LARGE AMOUNTS OF WATER UNTIL NO EVIDENCE OF CHEMICAL REMAINS (AT LEAST 15 - 20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.	
EMERGENCY FIRST AID: INGESTION IF SWALLOWED, ADMINISTER AT LEAST 3-4 GLASSES OF WATER BUT DO NOT INDUCE VOMITING OR GIVE WATER TO UNCONSCIOUS OR CONVULSING PERSON. SEEK MEDICAL ATTENTION.	
EMERGENCY FIRST AID: EYE CONTACT WASH EYES IMMEDIATELY WITH LARGE AMOUNTS OF WATER OR NORMAL SALINE, OCCASIONALLY LIFTING UPPER AND LOWER LIDS, UNTIL NO EVIDENCE OF CHEMICAL REMAINS (AT LEAST 15 - 20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.	
SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE:	
HANDLING: SPILLAGE SPILLS SHOULD BE PLACED IN SUITABLE CONTAINERS FOR DISPOSAL IN A LICENSED FACILITY. WEAR APPROPRIATE RESPRITORY PROTECTION AND PROTECTIVE CLOTHING AND PROVIDE ADEQUATE VENTILATION DURING CLEAN-UP.	
HANDLING: WASTE DISPOSAL DISPOSE IN CLOSED CONTAINERS. COMPLY WITH LOCAL, STATE, AND FEDERAL REGULATIONS.	
HANDLING: STORAGE STORE BELOW 100 F TO AVOID MELTING.	
HANDLING: OTHER PRECAUTIONS AGRESSIVE MEASURES SHOULD BE TAKEN TO AVOID DUST ACCUMULATION; EMPLOY BONDING, GROUNDING, VENTING, AND EXPLOSION RELIEF PROVISIONS IN ACCORDANCE WITH ACCEPTED ENGINEERING PROCEDURES.	
SECTION VIII - CONTROL MEASURES:	
CONTROL: RESPIRATORY PROTECTION NIOSH/MSHA APPROVED DUST RESPIRATOR RECOMMENDED IF THE AIRBORNE DUST CONCENTRATION IS NEAR OR EXCEEDS THE NUISANCE DUST EXPOSURE LIMITS. IF VENTILATION IS NOT SUFFICIENT TO CONTROL PROCESSING GASES AND FUMES, A	

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DATE: 2/26/08 MATERIAL SAFETY DATA SHEET SHIPPED FROM: PAGE: 7 ------. -----MILFORD - CLARIANT 745 MC COLLEY STREET MILFORD DE 19963 PHONE: 302 422 3021 EMERGENCY TELEPHONE: 269-753-8434 CLARIANT WEBSITE: HTTP://WWW.CLARIANTMASTERBATCH.COM PRODUCT DESCRIPTION: PUR TEXIN 285 025.00:1 NAVY BLUE PRODUCT CODE: 00055804 _____ SECTION VIII - CONTROL MEASURES: (CONT) NIOSH APPROVED RESPIRATOR SHOULD BE SELECTED AND WORN BASED ON THE CONTAMINATION LEVELS FOUND IN THE WORKPLACE. CONTROL: VENTILATION PROVIDE LOCAL EXHAUST VENTILATION. VENTILATION EQUIPMENT SHOULD BE EXPLOSION-PROOF IF EXPLOSIVE CONCENTRATIONS OF DUST, VAPOR OR FUME ARE PRESENT. CONTROL: GLOVES IMPERVIOUS GLOVES CONTROL: EYE PROTECTION SIDESHIELD SAFETY GLASSES CONTROL: OTHER CLOTHING TO PREVENT SKIN CONTACT WEAR SKIN PROTECTION, SUCH AS IMPERVIOUS GLOVES, APRON, WORKPANTS, LONG SLEEVE WORKSHIRT, OR DISPOSABLE COVERALLS. CONTROL: WORK/HYGIENE OBSERVE PROPER INDUSTRIAL HYGIENIC PRACTICES ACCORDING TO REGULATIONS. ------...... SECTION IX - OTHER REGULATORY INFORMATION: SARA - THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372: THIS INFORMATION SHOULD BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL. DOES NOT CAS # EXCEED(%) DESCRIPTION NONE TSCA - ALL INGREDIENTS USED TO PRODUCE THE ABOVE FORMULATION ARE IN COMPLIANCE WITH THE TOXIC SUBSTANCES AND CONTROL ACT INVENTORY AS REQUIRED BY FEDERAL LAW. SECTION X - STATE REGULATORY INFORMATION: _____

DATE: 2/26/08 MATERIAL SAFETY DATA SHEET PAGE : 8 SHIPPED FROM: MILFORD - CLARIANT 745 MC COLLEY STREET MILFORD DE 19963 PHONE: 302 422 3021 EMERGENCY TELEPHONE: 269-753-8434 CLARIANT WEBSITE: HTTP://WWW.CLARIANTMASTERBATCH.COM PRODUCT DESCRIPTION: PUR TEXIN 285 025.00:1 NAVY BLUE PRODUCT CODE: 00055804 SECTION X - STATE REGULATORY INFORMATION: CA PROPOSITION 65: WARNING - ANY COMPONENT OF THIS PRODUCT WHICH CONTAINS MATERIALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER ARE LISTED BELOW: PCB'S UP TO 25 PPM CRYSTALLINE SILICA CA PROPOSITION 65: WARNING - ANY COMPONENT OF THIS PRODUCT WHICH CONTAINS MATERIALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM ARE LISTED BELOW: PCB'S UP TO 25 PPM CANADIAN WHMIS: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS GIVEN IN WHMIS IS SHOWN BELOW: NONE FLORIDA: NON-HAZARDOUS INGREDIENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION. ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED ON THE FLORIDA HAZARDOUS LIST IS GIVEN IN SECTION II OF THIS MSDS. ANY LISTED CHEMICALS NOT SHOWN IN SECTION II ARE AS FOLLOWS: NONE MASSACHUSETTS: NON-HAZARDOUS INGREDIENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION. ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED ON THE MASSACHUSETTS HAZARDOUS LIST IS GIVEN IN SECTION II OF THIS MSDS. ANY LISTED CHEMICALS NOT SHOWN IN SECTION II ARE AS FOLLOWS: NONE NEW JERSEY: NON-HAZARDOUS INGREDIENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION. ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED ON THE NEW JERSEY HAZARDOUS LIST IS GIVEN IN SECTION II OF THIS MSDS. ANY LISTED CHEMICALS NOT SHOWN IN SECTION II ARE AS FOLLOWS: NONE PENNSYLVANIA: NON-HAZARDOUS INGREDIENTS ARE BEING WITHHELD AS TRADE SECRET INFORMATION. ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL AS LISTED ON THE PENNSYLVANIA HAZARDOUS

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PRODUCT DESCRIPTION: PUR TEXIN 285 025.00:1 NAVY BLUE PRODUCT CODE: 00055804

SECTION X - STATE REGULATORY INFORMATION: (CONT)

LIST IS GIVEN IN SECTION II OF THIS MSDS. ANY LISTED CHEMICALS NOT SHOWN IN SECTION II ARE AS FOLLOWS:

NONE

RHODE ISLAND: ANY COMPONENT OF THIS PRODUCT WHICH IS A HAZARDOUS CHEMICAL CHEMICAL AS LISTED IN THE RHODE ISLAND SUBSTANCE LIST IS SHOWN IN SECTION II OF THIS MSDS. ANY LISTED CHEMICALS NOT SHOWN IN SECTION II ARE AS FOLLOWS: NONE

THIS INFORMATION IS ACCURATE AND RELIABLE TO THE BEST OF OUR KNOWLEDGE. IT IS FURNISHED WITHOUT WARRANTY, EXPRESSED OR IMPLIED. CLARIANT CORPORATION ASSUMES NO LEGAL RESPONSIBILITY FOR THE USE OF, OR RELIANCE UPON, THESE DATA FOR HAZARDS WHICH MIGHT BE ASSOCIATED WITH THE USE OF THIS MATERIAL OR FOR THE RESULTS OBTAINED. IT IS THE RESPONSIBILITY OF THE USER TO COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS.

MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION

Manufacturer: Color Master, Inc. P.O. Box 338 810 South Broadway Butler, IN 46721 Information Phone: 260-868-2320 Product Class: Color Concentrate Prepared by: Kyle Skaggs Emergency Phone: 260-868-2320 CAS Number: Mixture Title: Vice President

MSDS Effective Date: 5/11/10

MSDS Print Date: 9/25/12

Product Name: 20% BARIUM SULFATE IN TEXIN 285 URETHANE

Product Code: AD1037M

Customer Name: AURADONICS, INC.

Customer Code: N/A

SECTION II - HAZARDOUS INGREDIENTS

Ingredient

Weight %

Exposure Limits ACGIH TLV

OSHA PEL

CONTAINS NO HAZARDOUS MATERIALS

Notes:

A) All ingredients in this product are listed in the T.S.C.A. inventory. B) All exposure limits are in milligrams per cubic meter (mg/m3) unless otherwise noted. C) (1) indicates that the material is considered reportable under Section 312 of S.A.R.A. Title III. D) (2) indicates that the material is considered reportable under Section 313 of S.A.R.A. Title III. E) N/E indicates no limits established for this material.

CAS#

SECTION III - PHYSICAL DATA

Boiling Range: Not Applicable Vapor Pressure: Not Applicable Percent Volatile: Negligible to none Freezing Range: Not Applicable Evaporation Rate: Non-volatile Odor: Characteristic "plastic" Specific Gravity: Approx. 1.75 Solubility in water: None Appearance: Colored Pellets

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

<u>Flammability Class</u>: Not Established <u>Flash Point</u>: Not Established <u>Extinguishing Media</u>: Water spray, foam, carbon dioxide, or dry chemical.

<u>Special Fire Fighting Procedures</u>: As with any fire, combustion byproducts and heat will be generated. Generally, firefighters should be equipped with a self-contained breathing apparatus and full turnout gear when fighting any fire. Do not attempt to fight any fire unless you have been trained to do so.

Unusual Fire and Explosion Hazards: As noted above, toxic combustion byproducts may be produced in any fire.

SECTION V - HEALTH HAZARD DATA

Permissible Exposure Limits and Threshold Limit Values: See Section II.

Effects of Overexposure: General Statement: Although the individual hazardous properties of the ingredients contained in this product are given, the hazardous characteristics of this mixture may not necessarily reflect each of the hazardous characteristics of its ingredients.

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<u>Additionally, due to resin encapsulation, the probability of exposure to any hazardous ingredients</u> <u>contained in this product (and related adverse health effects) during normal operations is considered</u> <u>minimal.</u>

Emergency and First Aid Procedures:

Eyes: Plastic pellets or dust may cause mechanical lesions to the eyes. If unable to be rinsed out with plenty of water, contact a physician.

<u>Skin</u>: Molten resin that comes in contact with skin should be cooled immediately with cold running water. Do not remove molted resin without first consulting a physician. Plastic pellets may cause mechanical lesions to the skin. Plastic dust or migratory additives which may be present in this product may irritate the skin. For contact, wash skin with soap and water. If irritation persists, seek medical attention.

Inhalation: Normally, no inhalation is possible. If dust is generated and inhaled, remove to fresh air and/or consult a physician.

<u>Ingestion</u>: Plastic pellets or plastic dust may cause mechanical irritation to the gastro-intestinal system if ingested. Virtually no possibility of exposure to any hazardous ingredients encapsulated in plastic resin is expected after ingestion, however.

SECTION VI - REACTIVITY DATA

Stability: Stable

<u>Hazardous Polymerization</u>: Will not occur <u>Incompatibility</u>: Avoid contact with strong acids or oxidizing agents.

<u>Hazardous Decomposition Products</u>: Carbon Dioxide and carbon monoxide upon burning, with the possibility of other toxic fumes depending upon ingredients.

SECTION VII - SPILL OR LEAK PROCEDURES

<u>Steps to be taken if material is released or spilled</u>: Spills or releases of this material do not require reporting to the National Response Center. If the material is not contaminated, scoop or sweep up for re-use. If the material is contaminated, scoop, sweep, or vacuum into suitable container for disposal, taking care to avoid the generation of dust.

<u>Waste Disposal Method</u>: Dispose of this material in accordance with all applicable local, state and federal regulations. This product does not demonstrate the characteristics of flammability, reactivity, or corrosivity which would characterize it as a RCRA hazardous waste. It should be tested for toxicity, however, using the Toxicity Characteristic Leaching Procedure (TCLP) test before being disposed of in a sanitary landfill. This product may contain ingredients which are considered hazardous wastes based on their toxicity characteristics.

SECTION VIII - SPECIAL PROTECTION INFORMATION

<u>Ventilation</u>: It is recommended to exhaust processing fumes from the work area. If fume ventilation is used, fume collection ductwork should be regularly cleaned to remove oily deposits which are very flammable and/or corrosive and irritating to skin or eyes. If dust is generated, dust collection ventilation may be necessary to maintain airborne concentrations below all applicable exposure limits (see Section II).

<u>Respiratory Protection</u>: When dust is present, A NIOSH/MSHA approved respirator (approved for TC-21C dusts) should be used. If fumes are present, use a respirator equipped with organic vapor cartridges. Please reference OSHA standard 29 C.F.R. 1910.134 for all procedures necessary if respirators are issued to any employee(s).

<u>Other Protective Equipment</u>: ANSI approved safety glasses or goggles, protective gloves, work uniforms, and/or disposable coveralls are recommended. Additionally, each employee working with these materials should have access to an eye wash and complete first aid kit.

SECTION IX - SPECIAL PRECAUTIONS

<u>Precautions to be Taken in Handling and Storing</u>: Store in closed containers away from food, sparks, and open flame. This product may react with strong oxidizing agents or strong acids and should not be stored near such materials. As with any material meant for industrial use only, good industrial practices and procedures should be followed at all times when handling, storing, or processing this material.

SECTION X - OTHER REGULATORY INFORMATION

Please reference Section II of this MSDS to determine if ingredients are present which are considered reportable under Sections 312 or 313 of S.A.R.A. Title III. Information pertaining to S.A.R.A. Title III must remain with this MSDS at all times and must be included in any copies of this msds which are made.

For other regulatory information, such as California Proposition 65, CONEG, New Jersey right-to-know, Pennsylvania right-to-know, etc., please contact the preparer listed in Section I.

SECTION XI - HMIS RATING

0	HEALTH
1	FLAMMABILITY
0	REACTIVITY
С	PROTECTIVE
	EQUIPMENT

END OF MATERIAL SAFETY DATA SHEET

Disclaimer: The information presented in this Material Safety Data Sheet has been compiled from sources which are considered to be reliable, and is accurate and dependable to the best of our knowledge. Since Color Master, Inc. cannot control usage of this product, however, Color Master, Inc. makes no guarantees of any kind, express or implied, except those which may be contained in a written contract of sale. If the "MSDS Effective Date" found in Section I of this document is more than two years old, please contact Color Master, Inc. for the most recent edition of the Material Safety Data Sheet for this product. Each user of this product has the responsibility to read and understand the information presented herein and make certain that it is communicated to employees in accordance with all applicable OSHA or EPA regulations.