#### MATERIAL SAFETY DATA SHEET

Aerospace

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AXONHENTZEN

24-hour Emergency Phone: 1-800-424-9300 PRODUCT CODE: PG-6-G62FC

	1.	IDENTIFICATION OF THE	PREPARATION AND C	OMPAN	Y		
PRODUCT NAME:	HS F TOPC	PANTONE 6 COOL GRAY PU	HMIS CODES:	н	с	FR	P
PRODUCT CODE:		-G62FC		2		3 1	G
MANUFACTURER'S		AXONHENTZEN Aerospa	се				
INFORMATION PHO	: NE :	Greenville, SC 29605	DATE GENER		10 (	14/00	10

2. COMPOSITION/INFORMATION ON INGREDIENTS

REPORTABLE COMPONENTS	CAS NUMBER	VAPOR PRESSURE mm Hg	@ TEMP	WEIGHT PERCENT
*METHYL NORMAL AMYL KETONE ACGIH TLV: 50 PPM SSHA 100 PPM TWA	110-43-0	2.80	68 F	10% to 25%
*XYLENE OSHA PEL: 100 PPM ACGIH TLV: 100 PPM	1330-20-7	2.4	68 F	1% to 10%
PROPRIETARY POLYMER SOLUTION ETHYL ACETATE OSHA PEL: 400 PPM, ACGIH TLV: 400 PPM	141-78-6	4.5 76	68 F 68 F	1% to 10% 1% to 10%
GLYCOL ETHER PM ACETATE	108-65-6	3.7	68	1% to 10%
*PROPRIETARY POLYMER SOLUTION 100 PPM - 8HRS TWA 150 PPM - STEL 100 PPM - 8 HRS TWA		N/A	N/A	1% to 10%
*PROPRIETARY HETEROCYCLE		N/A	N/A	0% to 1%
PROPRIETARY POLYMER SOLUTION TLV (ACGIH); 1 MG/M3; 50 PPM;100 PPM STEL (ACGIH); 3 MG/M3 PEL (OSHA); 1 MG/M3		4	68 F	0% to 1%
*METHYL ISOBUTYL KETONE OSHA VPEL: 50 PPM - TWA OSHA VPEL: 75 PPM - STEL ,ACGIH TLV: 50 PPM - TWA ,ACGIH TLV: 75 PPM - STEL	108-10-1	16	68 F	0% to 1%
*ETHYL BENZENE OSHA - 125ppm, ACGIH - 125ppm	100 - 41 - 4	7.1	68 F	0% to 1%
DIBK	108-83-8	1.7	68 F	0% to 1%
OSHA PEL: 25 PPM, ACGIH TLV: 25 PPM POLYALKYLENE GLYCOL TLV (ACGIH); 100 PPM STEL (ACGIH); 150 PPM		> 7	68 F	0% to 1%
PEL (OSHA): 100 PPM *FLUOROSILICONE OSHA PEL AND ACGIH TLV: TWA 50 PPM, STEL 75 PPM		N/A	N/A	0% to 1%

# AXONHENTZEN

#### MATERIAL SAFETY DATA SHEET

**24-hour Emergency Phone:** 1-800-424-9300 **PRODUCT CODE:** PG-6-G62FC Page 2

### \* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

3. HAZARD IDENTIFICATION OF THE PRODUCT

May impair fertility. May cause harm to the unborn child. Flammable. Harmful by inhalation, in contact with skin and if swallowed.

Further information is given in section 11.

#### 4. FIRST AID MEASURES

#### EMERGENCY AND FIRST AID PROCEDURES

Eye Contact: Flush with water for 15 minutes. Consult a physician. Skin Contact: Wash affected area with soap and water. Remove contaminated clothing. Consult a physician. Inhalation: Remove to fresh air. Consult a physician. Ingestion: Drink water to dilute. Do not induce vomiting. Consult a physician.

#### 5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: FOAM, CO2, DRY CHEMICAL, WATER FOG

#### SPECIAL FIREFIGHTING PROCEDURES

Water spray may be ineffective. If water is used, fog nozzles are preferred. Water may be used to cool closed containers to prevent pressure build-up and possible auto-ignition or explosion when exposed to extreme heat.

#### UNUSUAL FIRE AND EXPLOSION HAZARDS

Keep containers tightly closed. Isolate from heat, sparks, electrical equipment and open flames. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. Self-contained breathing apparatus should be worn by firefighters.

#### 6. ACCIDENTAL RELEASE MEASURES

#### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Evacuate non-essential personnel. Remove all sources of ignition. Ventilate the area. Equip clean-up crew with self-contained breathing apparatus. Dike spill. Cover with sawdust, vermiculite or Fuller's earth. Collect in open containers.

#### 7. HANDLING AND STORAGE

#### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Do not store above 100 degrees F. Store in large quantities only in buildings designed to comply with OSHA 1910.106. Keep containers closed and upright to prevent leakage. Do not store or use near heat, sparks or flames.

#### OTHER PRECAUTIONS

Avoid prolonged or repeated contact with vapor or spray mist during application or curing.

#### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### Engineering Measures

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of

# AXONHENTZEN

#### MATERIAL SAFETY DATA SHEET

24-hour Emergency Phone: 1-800-424-9300 **PRODUCT CODE:** PG-6-G62FC

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168.0 F TO 344.0 F

TCC

particulates and any vapour below occupational exposure limits suitable respiratory protection must be worn.

#### Personal Protection

#### **Respiratory Protection**

Where overspray is present, a positive pressure air supplied respirator (TC19C NIOSH/MSHA approved) should be worn. If unavailable, a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2 may be effective. Follow respirator manufacturer's directions for use. Wear the respirator for the entire time of spraying and until all vapors and mists are gone. NO PERSONS SHOULD BE ALLOWED IN THE AREA WHERE THIS PRODUCT IS BEING USED UNLESS EQUIPPED WITH THE SAME RESPIRATOR PROTECTION RECOMMENDED FOR THE PAINTERS. When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

#### Eve Protection

Wear safety eyewear, e.g. safety spectacles, goggles or visors to protect against the splash of liquids.

#### Hand Protection

Nitrile rubber gloves should be worn during mixing and application.

#### Skin Protection

Overalls which cover the body, arms and legs should be worn. Skin should not be exposed. Barrier creams may help to protect areas which are difficult to cover such as the face and neck. They should however not be applied once exposure has occurred. Petroleum jelly based types such as Vaseline should not be used. All parts of the body should be washed after contact.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 168.0 F BOILING RANGE: FLASH POINT °F: 26.00 METHOD USED: COATING V.O.C.: 413.51 G/L MATERIAL V.O.C.: 413.51 G/L SPECIFIC GRAVITY (H2O=1): 1.3087 VAPOR DENSITY: HEAVIER THAN AIR EVAPORATION RATE: SLOWER THAN ETHER SOLUBILITY IN WATER: INSOLUBLE APPEARANCE AND ODOR: OPAQUE WITH ODOR OF SOLVENT

#### 10. STABILITY AND REACTIVITY

STABILITY: STABLE CONDITIONS TO AVOID Temperatures above maximum storage temperature. Avoid exposure to heat, sparks, or open flames. INCOMPATIBILITY (MATERIALS TO AVOID) Avoid contact with strong oxidizing agents. HAZARDOUS DECOMPOSITION OR BYPRODUCTS By fire - CO, CO2, nitrogen oxides. HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

TOXICOLOGICAL INFORMATION 11.

# **AXONHENTZEN** Kerospace

#### MATERIAL SAFETY DATA SHEET

24-hour Emergency Phone: 1-800-424-9300 PRODUCT CODE: PG-6-G62FC Page 4

Subsidiary Class

There are no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See Sections 2 and 15 for details.

Exposure to solvent vapour concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

#### 12. ECOLOGICAL INFORMATION

There are no data available on the product itself. The product should not be allowed to enter drains or water courses. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 199/45/EC and is not classified as dangerous for the environment.

#### 13. DISPOSAL CONSIDERATIONS

Do not allow into drains or water courses. Wastes and empty containers should be disposed of in accordance with regulations made under the Control of Pollution Act and the Environmental Protection Act.

#### 14. TRANSPORT INFORMATION

Transport only in accordance with the following regulations: UN1263 Paint, 3, II ADR/RID Class IMDG 3 Proper Shipping Name PAINT UN NO 1263 Ems F-E, S-E Packaging Group II Marine Pollutant No ICAO/IATA Shipping Name PAINT Class 3 UN NO 1263 Packaging Group TT

#### 15. REGULATORY INFORMATION

In accordance with EC Directive 88/379/EEC and the Chemicals (Hazard Information and Packaging for Supply) Regulations SI /3247/1994 this product is labeled as follows:

Symbol(s)

Toxic

Contains:

#### R. Phrases:

May impair fertility. May cause harm to the unborn child. Flammable.

# Aerospace

**AXONHENTZEN** 

#### MATERIAL SAFETY DATA SHEET

**24-hour Emergency Phone:** 1-800-424-9300 **PRODUCT CODE:** PG-6-G62FC Page 5

Harmful by inhalation, in contact with skin and if swallowed.

#### S. Phrases:

. .

Attention - Avoid Exposure - obtain special instructions before use. Do not breathe vapour/spray. Wear suitable protective clothing, gloves and eye/face protection. Use only in well-ventilated areas.

#### P. Phrases:

Restricted to professional users.

16. OTHER INFORMATION

The information contained herein is based on data considered accurate, but no warranty is expressed or implied. Users assume all responsibility and liability for loss or damage arising from the handling and use of our products, whether used alone or in combinations. Although hazardous materials are listed, we cannot guarantee these are the only ones that exist.

#### MATERIAL SAFETY DATA SHEET

AXONHENTZEN

**24-hour Emergency Phone:** 1-800-424-9300 **PRODUCT CODE:** PH-34FC

	1.	IDENTI	FICATIO	N OF	THE	PREE	PARATION	AND	COMPA	NY			
PRODUCT NAME:		UETHANE CURE	CURING	SOLU	TION	-	HMIS	CODES	В: Н	с	F	R	P
PRODUCT CODE:	PH-3	and the second							2		3	1	G
MANUFACTURER'S	NAME :	AXONH	ENTZEN	Aero	spac	e							
ADDRESS	:	307 Ech	nelon Ro	1	100								
		Greenvi	ille, SC	2960	05								
			9.2819					GENE		r 1	001	001/	

2. COMPOSITION/INFORMATION ON INGREDIENTS

REPORTABLE COMPONENTS	CAS NUMBER	VAPOR PRESSURE mm Hg	@ TEMP	WEIGHT PERCENT
ALIPHATIC POLYISOCYANATE	28182-81-2		68 F	40% to 60%
METHYL ETHYL KETONE	78-93-3	70	68	10% to 25%
ACGIH TLV: 300 PPM - STEL				
OSHA PEL: 300 PPM - STEL				
OSHA PEL: 200 PPM - TWA				
TERT BUTYL ACETATE	540-88-5	34	77 F	10% to 25%
ACGIH - 200ppm				
2,4 PENTANEDIONE	123-54-6	6.86	68 F	1% to 10%
ACGIH TLV: 20 PPM				
N-BUTYL ACETATE	123-86-4	1.25	68 F	1% to 10%
OSHA PEL: 150 PPM, ACGIH TLV: 150 PPM				
*METHYL NORMAL AMYL KETONE	110-43-0	2.80	68 F	1% to 10%
ACGIH TLV: 50 PPM				
SSHA 100 PPM TWA				
*CYCLOHEXANONE	108-94-1	2	68 F	1% to 10%
OSHA VPEL: 25 PPM TWA				
ACGIH TLV: 25 PPM TWA				
*METHYL ISOBUTYL KETONE	108-10-1	16	68 F	1% to 10%
OSHA VPEL: 50 PPM - TWA				
OSHA VPEL: 75 PPM - STEL				
,ACGIH TLV: 50 PPM - TWA				
, ACGIH TLV: 75 PPM - STEL				
*TOLUENE	108-88-3	22.00	68 F	1% to 10%
OSHA PEL: 100 PPM -TWA				
OSHA PEL: 150 PPM - STEL				
ACGIH TLV: 50 PPM - TWA (SKIN)				
ACGIH TLV 150 PPM - STEL (SKIN)		2		
TRADE SECRET INGREDIENT		1	212 F	0% to 1%

\* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

3. HAZARD IDENTIFICATION OF THE PRODUCT

May impair fertility. May cause harm to the unborn child. Flammable. Harmful by inhalation, in contact with skin and if swallowed.

Further information is given in section 11.

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# AXONHENTZEN

#### MATERIAL SAFETY DATA SHEET

**24-hour Emergency Phone:** 1-800-424-9300 **PRODUCT CODE:** PH-34FC Page 2

#### 4. FIRST AID MEASURES

#### EMERGENCY AND FIRST AID PROCEDURES

Eye Contact: Flush with water for 15 minutes. Consult a physician. Skin Contact: Wash affected area with soap and water. Remove contaminated clothing. Consult a physician. Inhalation: Remove to fresh air. Consult a physician. Ingestion: Drink water to dilute. Do not induce vomiting. Consult a physician.

#### 5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: FOAM, CO2, DRY CHEMICAL, WATER FOG

#### SPECIAL FIREFIGHTING PROCEDURES

Water spray may be ineffective. If water is used, fog nozzles are preferred. Water may be used to cool closed containers to prevent pressure build-up and possible auto-ignition or explosion when exposed to extreme heat.

#### UNUSUAL FIRE AND EXPLOSION HAZARDS

Keep containers tightly closed. Isolate from heat, sparks, electrical equipment and open flames. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. Self-contained breathing apparatus should be worn by firefighters.

#### 6. ACCIDENTAL RELEASE MEASURES

#### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Evacuate non-essential personnel. Remove all sources of ignition. Ventilate the area. Equip clean-up crew with self-contained breathing apparatus. Dike spill. Cover with sawdust, vermiculite or Fuller's earth. Collect in open containers.

#### 7. HANDLING AND STORAGE

#### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Do not store above 100 degrees F. Store in large quantities only in buildings designed to comply with OSHA 1910.106. Keep containers closed and upright to prevent leakage. Do not store or use near heat, sparks or flames.

#### OTHER PRECAUTIONS

Avoid prolonged or repeated contact with vapor or spray mist during application or curing.

#### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### Engineering Measures

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapour below occupational exposure limits suitable respiratory protection must be worn.

#### Personal Protection

#### **Respiratory Protection**

Where overspray is present, a positive pressure air supplied respirator (TC19C NIOSH/MSHA approved) should be worn. If unavailable, a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2 may be effective. Follow

## **AXONHENTZEN** Kerospace

#### MATERIAL SAFETY DATA SHEET

24-hour Emergency Phone: 1-800-424-9300 PRODUCT CODE: PH-34FC Page 3

respirator manufacturer's directions for use. Wear the respirator for the entire time of spraying and until all vapors and mists are gone. NO PERSONS SHOULD BE ALLOWED IN THE AREA WHERE THIS PRODUCT IS BEING USED UNLESS EQUIPPED WITH THE SAME RESPIRATOR PROTECTION RECOMMENDED FOR THE PAINTERS. When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

#### Eye Protection

Wear safety eyewear, e.g. safety spectacles, goggles or visors to protect against the splash of liquids.

#### Hand Protection

Nitrile rubber gloves should be worn during mixing and application.

#### Skin Protection

Overalls which cover the body, arms and legs should be worn. Skin should not be exposed. Barrier creams may help to protect areas which are difficult to cover such as the face and neck. They should however not be applied once exposure has occurred. Petroleum jelly based types such as Vaseline should not be used. All parts of the body should be washed after contact.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 175.0 F FLASH POINT <sup>0</sup>F: 15.80 COATING V.O.C.: 403.12 G/L SPECIFIC GRAVITY (H2O=1): 1.0071 VAPOR DENSITY: HEAVIER THAN AIR EVAPORATION RATE: SLOWER THAN ETHER SOLUBILITY IN WATER: INSOLUBLE APPEARANCE AND ODOR: OPAQUE WITH ODOR OF SOLVENT

 BOILING RANGE:
 175.0 F TO 446.0 F

 METHOD USED:
 TCC

 MATERIAL V.O.C.:
 351.91 G/L

#### 10. STABILITY AND REACTIVITY

STABILITY: STABLE CONDITIONS TO AVOID

CONDITIONS TO AVOID

Temperatures above maximum storage temperature. Avoid exposure to heat, sparks, or open flames. **INCOMPATIBILITY (MATERIALS TO AVOID)** 

#### Avoid contact with strong oxidizing agents.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

By fire - CO, CO2, nitrogen oxides and traces of HCN, TDI and HDI.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

#### 11. TOXICOLOGICAL INFORMATION

There are no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See Sections 2 and 15 for details.

Exposure to solvent vapour concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be

## **AXONHENTZEN** Kerospace

#### MATERIAL SAFETY DATA SHEET

**24-hour Emergency Phone:** 1-800-424-9300 **PRODUCT CODE:** PH-34FC Page 4

absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

#### 12. ECOLOGICAL INFORMATION

There are no data available on the product itself. The product should not be allowed to enter drains or water courses. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 199/45/EC and is not classified as dangerous for the environment.

#### 13. DISPOSAL CONSIDERATIONS

Do not allow into drains or water courses. Wastes and empty containers should be disposed of in accordance with regulations made under the Control of Pollution Act and the Environmental Protection Act.

#### 14. TRANSPORT INFORMATION

Transport only in accordance with the following regulations: ADR/RID UN1263 Paint, 3, II

Class	3	Subsidiary Class
Proper Shipping Name	PAINT	
UN NO	1263	
Ems	F-E, S-E	
Packaging Group	II	
Marine Pollutant	No	
Shipping Name	PAINT	
Class	3	
UN NO	1263	
Packaging Group	II	
	Proper Shipping Name UN No Ems Packaging Group Marine Pollutant Shipping Name Class UN No	Proper Shipping NamePAINTUN No1263EmsF-E, S-EPackaging GroupIIMarine PollutantNoShipping NamePAINTClass3UN No1263

#### 15. REGULATORY INFORMATION

In accordance with EC Directive 88/379/EEC and the Chemicals (Hazard Information and Packaging for Supply) Regulations SI /3247/1994 this product is labeled as follows:

#### Symbol(s)

Toxic

#### Contains:

#### R. Phrases:

May impair fertility. May cause harm to the unborn child. Flammable. Harmful by inhalation, in contact with skin and if swallowed.

#### S. Phrases:

Attention - Avoid Exposure - obtain special instructions before use. Do not breathe vapour/spray. Wear suitable protective clothing, gloves and eye/face protection. Use only in well-ventilated areas.

#### P. Phrases:

Restricted to professional users.

# **AXONHENTZEN** Aerospace

#### MATERIAL SAFETY DATA SHEET

24-hour Emergency Phone: 1-800-424-9300 PRODUCT CODE: PH-34FC Page 5

#### 16. OTHER INFORMATION

The information contained herein is based on data considered accurate, but no warranty is expressed or implied. Users assume all responsibility and liability for loss or damage arising from the handling and use of our products, whether used alone or in combinations. Although hazardous materials are listed, we cannot guarantee these are the only ones that exist.