

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
**ACTIVITY REPORT: On-site Inspection**

N724165698

<b>FACILITY:</b> PPG	<b>SRN / ID:</b> N7241
<b>LOCATION:</b> 3001 Hollow Ridge Dr., EATON RAPIDS	<b>DISTRICT:</b> Lansing
<b>CITY:</b> EATON RAPIDS	<b>COUNTY:</b> EATON
<b>CONTACT:</b> Joe Limon , Plant Manager	<b>ACTIVITY DATE:</b> 10/28/2022
<b>STAFF:</b> Michelle Luplow	<b>COMPLIANCE STATUS:</b> Compliance
<b>SUBJECT:</b> Onsite compliance inspection to determine compliance with General PTI 269-09 and PTI 74-03	<b>SOURCE CLASS:</b> MINOR
<b>RESOLVED COMPLAINTS:</b>	

Inspected by: Michelle Luplow (author) and David Rauch, Lansing District Office

Personnel Present: Joe Limon, Plant Manager (jlimon@ppg.com)

Dave West (dwest@ppg.com)

### Purpose

Conduct an unannounced onsite compliance inspection of PPG to determine compliance with PTI 74-03 for an acetic acid tank (pretreatment of substrate) and PTI 269-09, a general permit for a natural gas-fired burnoff oven. PTI 269-09A was issued June 2022. This unit has not yet been installed. Installation is planned for the spring of 2023

### Facility Background/Regulatory Discussion

This facility was formerly named MetoKote. PPG purchased this facility in 2017, and MetoKote was then renamed PPG. PPG was last inspected in February 2017. Joe Limon, Plant Manager, explained that Plant 10 of Meridian Magnesium Products of America is PPG. PPG prepares and coats magnesium auto parts (Ford F150 radiator support, Chrysler van lift gate, etc) which are produced at Meridian Magnesium. J. Limon said that the plant operates 3 8-hour shifts 7 days per week (24 hours per day, 7 days per week) and that they have been operating this way for the past 2 years. Prior to this, PPG was operating 2 8-hour shifts 5 days per week.

### Inspection

D. Rauch and I arrived at PPG at approximately 8:20 a.m. October 28, 2022 and met with Joe Limon. The entrance to Plant 10 is on the backside of the building (see attached map for actual location).

Table 1 contains a list of the equipment present onsite. I confirmed with J. Limon and D. West that there are no parts washers, boilers or emergency generators located onsite.

**Table 1. Permitted and exempt equipment**

Equipment	Description	PTI/Exemption	Control Device

<b>EUACIDTANK</b>	<b>Unheated 7500 gallon acetic acid tank for pretreatment of substrate</b>	<b>PTI 74-03</b>	<b>Mist Eliminator. See PTI 74-03 discussion below.</b>
<b>2 Powder Coat booths</b>	<b>Textured &amp; satin finish powder coat application. 1 booth used for textured finish (Chrysler parts, PPG coating), 1 booth used for satin finish (Ford parts, Protech coating)</b>	<b>Rule 287(2)(d)</b>	<b>Fabric filters. Paint booths are not vented to outside air. Fabric filters appeared to be installed properly during inspection.</b>
<b>Alkali surface treatment cleaner</b>	<b>Heated tank vented to in-plant environment. Utilizes Bonderite C-AK319.</b>	<b>Rule 285(2)(r)(i)</b>	<b>NA</b>
<b>Alodine surface treatment (pretreatment for corrosion- and rust-resistance)</b>	<b>Heated tank vented to in-plant environment. Utilizes Bondering M-NT 5220 R</b>	<b>Rule 285(2)(r)(i)</b>	<b>NA</b>
<b>Natural gas-fired Burnoff oven</b>	<b>1 MMBtu primary chamber and secondary chamber afterburner</b>	<b>General PTI 269-09  (oven covered under PTI 269-09A not yet installed)</b>	<b>Afterburner control</b>

**PTI 74-03: Acetic Acid tank for the pretreatment of substrate with mist eliminator system**

PTI 74-03 is for an acid tank that is used to clean and treat magnesium auto parts prior to coating. The Acetic acid tank (there is one 7,850-gallon tank) is not heated; it is kept at ambient temperature only.

The complete line (which includes acetic acid treatment and powder coating of the parts) is composed of 13 Stages:

**(1) Alkali Spray Cleaner (removes oil) → (2) Alkali Immersion (temperature kept at 115-140F, allows for cleaner to get into the small crevices of the part) → (3) City water rinse spray → (4) City water immersion → (5) Acetic Acid Spray (2 sections) and Immersion (1 bath) (opens up pores in metal to prep for primer/corrosion protectant) → (6) Deionized (DI) water spray → (7) DI water immersion → (8) Alodine immersion and spray (primer/corrosion protectant) → (9) DI water spray → (10) DI water immersion → (11) De-gas oven (removes impurities from metal, otherwise gas bubbles can form in the coating) → (12) Powder Coating (textured and satin finishes, one booth for each finish, 2 booths total) → (13) Curing oven**

Once the parts are treated in this 13-step process, they are powder-coated. The powder coating booths and its associated curing oven are exempt under Rule 287(2)(d). Both booths appear to be vented to the general in-plant environment, I did not observe any ventilation or stacks originating from these booths.

The alkali surface treatment/cleaning portion of the process is exempt per Rule 285(2)(r)(i) [surface treatment] or (iv) [cleaning] because emissions are only released to the general in-plant environment (i.e. this portion of the process is not connected to the mist eliminator).

This process has been operating 24 hours per day, 7 days per week for the past 2 years. As a result, PPG has identified issues with their process, in particular, the wash down frequencies required for the mist eliminator of the acetic acid tank.

## **EU-ACIDTANK**

EU-ACIDTANK was operating during the inspection.

### Material Limits & Recordkeeping

PPG is limited to the addition of 31,500 gallons of sulfuric acid and 31,500 gallons of acetic acid per 12-month rolling time period. PPG does not use sulfuric acid at this time. J. Limon provided me with monthly and 12-month rolling records of acetic acid usage (see attached). Records were reviewed from 2017 – October 2022. The highest 12-month rolling acetic acid usage was 21,373 gallons of acetic acid for the 12-month period of March 2018 – February 2019, and is within the permitted Material Limit at this time.

The bath concentration of acetic acid is limited to 12% by weight of the total tank solution. J. Limon said that the acetic acid solution is very weak, where only 1.5-2.0% of the solution is acetic acid. It was explained to D. Rauch and I that the tank holds 7,850 gallons of water; to that, they add approximately 1.5 drums (82 gallons) of 99.5% glacial acetic acid per day. This can change slightly depending on the needed etch rate, but the goal is to maintain the tank's pH below 5.5. The lbs of acetic acid in the tank (based on 82 gallons) equates to approximately a 1.1 wt% solution of acetic acid, therefore meeting the acetic acid concentration limit of the permit.

Records of tank operating hours and the SDS for the chemicals used in the tank are also maintained.

### Equipment

The mist eliminator system is required to be installed and operating properly and equipped with properly designed hooding and ductwork to control the emissions from the acid tank.

During the inspection, we reviewed the MET-Pro Corp/Duall Division ME Horizontal Mist Eliminator Installation and Operating Instructions (attached). The operating instructions indicate that proper operation of the mist eliminator includes operating the pressure drop at a range from 1" – 2" w.g. During the inspection, D. Rauch verified that the pressure drop on the system was less than 1" (0.1" w.g.). D. West explained that typically mist eliminator wash downs occur every second shift. The system is shut down during second shift, which triggers the wash-down cycle. Each wash down will raise the pressure drop to within the specified range, but J. Limon explained that the pressure drop decreases throughout the day. PPG had determined that they need to run the wash-down at least one per shift. I reminded J. Limon that they need to run the washdown cycle as often as necessary to remain within the 1-2" w.g. range, as specified by the manufacturer; more frequent washdowns will be necessary if washing the unit down once per shift does not maintain the pressure drop within the manufacturer's specified range. J. Limon said they would develop and implement preventative maintenance and standard operating procedures to ensure proper operation of the mist eliminator. Future inspections should include observation of the pressure drop and ensuring it is within range.

#### Stack/Vent Restrictions

The minimum stack height for the acid tank emissions is 53 feet above ground level. J. Limon worked with PPG staff to determine that the stack height is currently 38 feet above ground level. J. Limon is currently working with contractors to get the stack height extended to at least 53' above ground level. A date by which the stack height will be extended is currently being determined.

#### General PTI 269-09 Burnoff Oven with afterburner

PTI 269-09 is for a burnoff oven with afterburner. The unit is used to burn off the cured powder present on the racks as a result of the powder coating operations. The oven was operating during the inspection. D. Rauch and I did not observe any visible emissions being emitted from the burnoff oven's stack, in compliance with the permit requirement that there be no visible emissions from the stack. J. Limon said that each batch of racks remains in the oven for 3 hours. The burnoff oven is natural gas-fired and rated at 950,000 Btu/hr.

J. Limon said that it takes approximately 8 – 12 hours per load to completely burnoff the residual powder coat from the tooling racks.

#### **EUBURNOFF**

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#### Material Limits, Process/Operational Limits & Recordkeeping

PPG is not permitted to burn off any other materials than cured paints, oil or grease on metal parts/racks/and/or hangars (thermal destruction of rubber, plastics, uncured paints, or any other materials that contain sulfur or halogens, such as plastisol, PVC or Teflon is prohibited). PPG is required to maintain a current listing from the manufacturer of the chemical composition of each material, including the wt% of each component. J. Limon explained that only the racks with cured powder coat paint are processed in the oven and he provided me with the SDS for the 2 materials they process in the burnoff oven: ES542N49 Satin Black Epoxy, and PCT99106 RXF Black Texture Poly (SDS attached).

The SDS for each material suggests that neither of the materials contains sulfur or halogens.

#### Equipment & Recordkeeping

The afterburner is required to be installed, maintained and operated in a satisfactory manner, where satisfactory operation includes maintaining a minimum of 1400°F in the afterburner. The thermocouple for monitoring the afterburner temperature is required to be installed, calibrated and maintained in a satisfactory manner, including calibrating it annually. D. West showed us that the thermocouple for the afterburner is calibrated annually. The last calibration was conducted 1/13/22. The due date for the next calibration, according to PPG's records, is 1/13/23.

The temperature is recorded on a continuous basis on a chart recorder when the unit is operating (continuous monitoring is required under the permit's "Monitoring" requirements), but there is also a digital readout display for the unit. During the inspection, the after burner temperature was at 1504°F, the primary chamber temperature was at 906°F. J. Limon provided me with chart records for September 1-14, 2022. These records indicate that temperatures were above 1400°F, consistently at ~1500°F or higher when EUBURNOFF is operating. See attached for the 9/14/22 chart record.

EUBURNOFF is required to have an interlock system that shuts down the primary chamber burner when the secondary chamber or afterburner is not operating properly. D. West explained by example that if the gas pressure or spark plugs have issues this will cause the primary chamber burner to shut down if it is operating or it will cause the circuit to be cut so that the primary chamber burner does not start up. The primary chamber does not heat up until the afterburner is at least 1510°F.

#### Recordkeeping/Reporting/Notification

PPG is required to keep records of the date, duration and description of any malfunction of the control equipment. D. West said that they are not aware of any malfunctions since putting EUBURNOFF into operation.

#### Stack/Vent Restrictions

The exhaust gases from EUBURNOFF are required to be discharged unobstructed vertically upwards to the ambient air with an exit point not less than 1.5 times the building height. The stack appeared to be 1.5 times the building height, as well as oriented unobstructed vertically upward.

**Compliance Statement:** PPG appears to be in compliance with PTI 74-03 and PTI 269-09 pending the extension of the stack height and adjustments to PPG's standard operating procedures for the mist eliminator system on the acid tank.

NAME Michelle Luplow

DATE 12/12/22

SUPERVISOR RB







**METOKOTE CORPORATION / PLANT 10 EATON RAPIDS (N7241)  
MICHIGAN DEQ AIR PERMIT 74-03**

	TYPE OF ACID USED	POUNDS ACID USED	GALLONS ACID USED	12 MONTH ROLLING TOTAL	MEETING PERMIT LIMIT	TOTAL OPERATING HOURS
MONTH		POUNDS	GALLONS	GALLONS	Y/N	HOURS
<b>JAN 2017</b>	ACETIC	5,400	620	620	Y	445
FEB	ACETIC	6,300	724	1,344	Y	427
MAR	ACETIC	8,550	982	2,326	Y	551
APR	ACETIC	7,200	827	3,153	Y	539
MAY	ACETIC	11,250	1,292	4,446	Y	665
JUN	ACETIC	11,700	1,344	5,790	Y	667
JUL	ACETIC	7,650	879	6,669	Y	599
AUG	ACETIC	12,150	1,396	8,064	Y	690
SEP	ACETIC	10,800	1,241	9,305	Y	648
OCT	ACETIC	9,900	1,137	10,442	Y	652
NOV	ACETIC	11,250	1,292	11,735	Y	657
DEC	ACETIC	9,450	1,086	12,820	Y	479
<b>JAN 2018</b>	ACETIC	13,050	1,499	13,699	Y	608
FEB	ACETIC	7,200	827	13,802	Y	645
MAR	ACETIC	18,000	2,068	14,888	Y	682
APR	ACETIC	16,650	1,913	15,974	Y	621
MAY	ACETIC	13,450	1,545	16,226	Y	688
JUN	ACETIC	17,600	2,022	16,904	Y	684
JUL	ACETIC	13,500	1,551	17,576	Y	544
AUG	ACETIC	18,640	2,141	18,322	Y	642
SEP	ACETIC	14,850	1,706	18,787	Y	473
OCT	ACETIC	20,700	2,378	20,028	Y	721
NOV	ACETIC	3,600	414	19,149	Y	574
DEC	ACETIC	22,112	2,540	20,603	Y	477
<b>JAN 2019</b>	ACETIC	13,950	1,603	20,707	Y	565
FEB	ACETIC	13,000	1,493	21,373	Y	561
MAR	ACETIC	14,000	1,608	20,913	Y	600
APR	ACETIC	13,050	1,499	20,500	Y	509
MAY	ACETIC	14,850	1,706	20,661	Y	526
JUN	ACETIC	14,850	1,706	20,345	Y	555
JUL	ACETIC	13,500	1,551	20,345	Y	533
AUG	ACETIC	14,400	1,654	19,858	Y	597
SEP	ACETIC	13,500	1,551	19,703	Y	583
OCT	ACETIC	16,650	1,913	19,237	Y	627
NOV	ACETIC	14,400	1,654	20,478	Y	603
DEC	ACETIC	13,950	1,603	19,540	Y	621
<b>JAN 2020</b>	ACETIC	15,300	1,758	19,696	Y	552
FEB	ACETIC	12,600	1,447	19,650	Y	577
MAR	ACETIC	11,700	1,344	19,385	Y	408
APR	ACETIC	0	0	17,886	Y	0
MAY	ACETIC	2,250	258	16,439	Y	104
JUN	ACETIC	14,400	1,654	16,387	Y	526
JUL	ACETIC	14,400	1,654	16,491	Y	640
AUG	ACETIC	14,850	1,706	16,542	Y	704
SEP	ACETIC	16,650	1,913	16,904	Y	694
OCT	ACETIC	6,750	775	15,767	Y	717
NOV	ACETIC	12,150	1,396	15,508	Y	681
DEC	ACETIC	13,500	1,551	15,457	Y	538
<b>JAN 2021</b>	ACETIC	14,462	1,661	15,360	Y	680
FEB	ACETIC	8,550	982	14,895	Y	525
MAR	ACETIC	15,814	1,817	15,368	Y	668
APR	ACETIC	9,450	1,086	16,453	Y	473
MAY	ACETIC	6,032	693	16,888	Y	324
JUN	ACETIC	8,250	948	16,181	Y	390
JUL	ACETIC	11,880	1,365	15,892	Y	504
AUG	ACETIC	14,014	1,610	15,796	Y	644
SEP	ACETIC	9,642	1,108	14,991	Y	520
OCT	ACETIC	15,300	1,758	15,973	Y	714
NOV	ACETIC	15,104	1,735	16,312	Y	671
DEC	ACETIC	12,374	1,421	16,183	Y	514
<b>JAN 2022</b>	ACETIC	11,216	1,288	15,810	Y	574
FEB	ACETIC	10,156	1,167	15,994	Y	623
MAR	ACETIC	15,428	1,772	15,950	Y	657
APR	ACETIC	13,306	1,529	16,393	Y	622
MAY	ACETIC	13,050	1,499	17,199	Y	653
JUN	ACETIC	10,316	1,185	17,437	Y	607
JUL	ACETIC	12,244	1,407	17,478	Y	646
AUG	ACETIC	13,692	1,573	17,441	Y	726
SEP	ACETIC	15,750	1,809	18,143	Y	688
OCT	ACETIC	14,850	1,706	18,091	Y	684

**MET-PRO CORPORATION/DUALL DIVISION  
ME HORIZONTAL MIST ELIMINATORS**

**INSTALLATION AND OPERATING INSTRUCTIONS**

1. Duall **ME** mist eliminators must be installed in a horizontal section of duct. The inlet of each unit must be connected to a length of straight duct no less than 2-1/2 times the diameter of the ME air inlet. The eliminator must be attached to and supported by a platform, floor, or other stable structure. Do not expect the duct to support the mist eliminator.
2. Inlet and outlet are provided with 1-1/2" flanges which must be drilled in the field to match the duct. Holes should be 5/16" diameter and on no more than 4" centers. A chemically-resistant gasket should be used to seal the flanges.
3. Connect a fresh water supply to the Dwyer Series RM flowmeter and solenoid valve which Duall has not provided. The water supply should be provided at 30 PSI. Adjust flowmeter to the rate shown on the fabrication drawing. Heat trace if necessary to protect from freezing.
4. The unit is provided with a drain coupling on the shell. Moisture/contaminants that are removed from the air stream and washdown liquid will drain from the unit at this point. Make sure that the drain is properly trapped, and full of liquid prior to start-up, and continuously thereafter. Heat trace if necessary to protect from freezing.
5. Read the initial pressure drop at time of start-up and make note of the reading for your records and future operational reference. It should range from 1" to 2" w.g. The bottom pressure tap should be connected to the high gauge port and the top tap to the low port. Also, check for misting out the stack. If misting is occurring, turn off the unit and consult the factory.
6. Periodic inspections should be made to check for proper operation of the drain and washdown nozzle, as well as for any evidence of fouling (i.e. increased differential pressure based upon clean start-up readings), chemical attack, or structural damage. These inspections should be made on a monthly basis, or sooner if your experience indicates that this is necessary.
7. Fan must be shut down during and for a duration of 15 minutes after the wash down cycle for single Mist Eliminator units. Units with two Mist Eliminators allow the first Mist Eliminator to be washed during fan operation. The frequency of washdown depends on the application and ambient air quality. The unit should be washed for one minute once per week, or as required. The final schedule should be determined after several weeks of operation. Careful attention should be given to pressure drop readings and visual inspections before finalizing or changing the washdown frequency.
8. Check for misting out the stack. If misting is occurring, immediately turn off the unit and contact the factory.
9. The scrubber is ready to begin treating contaminated air, however, do not place a system in service without written verification from Duall personnel that the system has been properly installed and started up. Failure to do so voids all warranties.





# SAFETY DATA SHEET



Date of issue/Date of revision 14 January 2022

Version 17

## Section 1. Identification

**Product name** : RXF BLACK TEXTURE POLY  
**Product code** : PCT99106  
**Other means of identification** : Not available.  
**Product type** : Powder.

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

**Product use** : Industrial applications.  
**Use of the substance/mixture** : Coating. Paints. Painting-related materials.  
**Uses advised against** : Not applicable.

**Manufacturer** : PPG Industries, Inc.  
One PPG Place  
Pittsburgh, PA 15272  
**Emergency telephone number** : (412) 434-4515 (U.S.)  
(514) 645-1320 (Canada)  
SETIQ Interior de la República: 800-00-214-00 (México)  
SETIQ Ciudad de México: (55) 5559-1588 (México)  
**Technical Phone Number** : 1-888-774-2001 (US and Canada)

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
**Classification of the substance or mixture** : COMBUSTIBLE DUSTS  
SKIN SENSITIZATION - Category 1  
GERM CELL MUTAGENICITY - Category 1  
CARCINOGENICITY - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
☑ Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 34.6% (dermal), 2.1% (inhalation)

### GHS label elements

**Hazard pictograms** :

**Signal word** : Danger

## Section 2. Hazards identification

<b>Hazard statements</b>	: May cause an allergic skin reaction. May cause genetic defects. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure. May form combustible dust concentrations in air.
<b>Precautionary statements</b>	
<b>Prevention</b>	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Do not breathe dust or mist. Contaminated work clothing must not be allowed out of the workplace.
<b>Response</b>	: IF exposed or concerned: Get medical advice or attention. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention.
<b>Storage</b>	: Store locked up.
<b>Disposal</b>	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	: Keep container tightly closed. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Prevent dust accumulation. Emits toxic fumes when heated.
<b>Hazards not otherwise classified</b>	: Fine dust clouds may form explosive mixtures with air. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Mixture
<b>Product name</b>	: RXF BLACK TEXTURE POLY

Ingredient name	%	CAS number
aluminium hydroxide	≥20 - ≤50	21645-51-2
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	≥1.0 - ≤5.0	2451-62-9
carbon black	≥1.0 - ≤5.0	1333-86-4
titanium dioxide	≤1.0	13463-67-7

SUB codes represent substances without registered CAS Numbers.

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

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

**Occupational exposure limits, if available, are listed in Section 8.**



## Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

### Description of necessary first aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

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

#### Over-exposure signs/symptoms

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

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use dry chemical powder.
- Unsuitable extinguishing media** : Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.

**Specific hazards arising from the chemical** : Fine dust clouds may form explosive mixtures with air.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon oxides  
nitrogen oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small spill** : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe dust. Do not ingest. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Special precautions** : If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Do not store below the following temperature: 5°C (41°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
aluminium hydroxide	<b>ACGIH TLV (United States, 1/2021).</b> TWA: 1 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	<b>ACGIH TLV (United States).</b> TWA: 1 mg/m <sup>3</sup> <b>ACGIH TLV (United States, 1/2021).</b> TWA: 0.05 mg/m <sup>3</sup> 8 hours.
carbon black	<b>ACGIH TLV (United States, 1/2021).</b> TWA: 3 mg/m <sup>3</sup> 8 hours. Form: Inhalable fraction <b>OSHA PEL (United States, 5/2018).</b>



## Section 8. Exposure controls/personal protection

titanium dioxide

TWA: 3.5 mg/m<sup>3</sup> 8 hours.  
**OSHA PEL (United States, 5/2018).**  
 TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust  
**ACGIH TLV (United States, 1/2021).**  
 TWA: 10 mg/m<sup>3</sup> 8 hours.

### Key to abbreviations

A	= Acceptable Maximum Peak	S	= Potential skin absorption
ACGIH	= American Conference of Governmental Industrial Hygienists.	SR	= Respiratory sensitization
C	= Ceiling Limit	SS	= Skin sensitization
F	= Fume	STEL	= Short term Exposure limit values
IPEL	= Internal Permissible Exposure Limit	TD	= Total dust
OSHA	= Occupational Safety and Health Administration.	TLV	= Threshold Limit Value
R	= Respirable	TWA	= Time Weighted Average
Z	= OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances		

### Consult local authorities for acceptable exposure limits.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety glasses with side shields.

#### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Gloves** : butyl rubber

## Section 8. Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. The respiratory protection shall be in accordance to 29 CFR 1910.134.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Solid.  
Powder.
- Color** : Black.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Closed cup: Not applicable.
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not applicable.
- Evaporation rate** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not applicable.
- Relative density** : 1.43
- Density ( lbs / gal )** : 11.93
- Solubility** : Insoluble in the following materials: cold water.
- Partition coefficient: n-octanol/water** : Not applicable.
- Viscosity** : Kinematic (40°C (104°F)): Not applicable.
- Volatility** : 0% (v/v), 0% (w/w)
- % Solid. (w/w)** : 100

## Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
- Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
- Hazardous decomposition products** : Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
aluminium hydroxide	LC50 Inhalation Dusts and mists	Rat	>5.09 mg/l	4 hours
	LD50 Oral	Rat	>5000 mg/kg	-
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	LD50 Oral	Rat	138 mg/kg	-
carbon black	LD50 Oral	Rat	>10 g/kg	-
titanium dioxide	LC50 Inhalation Dusts and mists	Rat	>6.82 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

**Conclusion/Summary** : There are no data available on the mixture itself.

#### Irritation/Corrosion

##### Conclusion/Summary

**Skin** : There are no data available on the mixture itself.

**Eyes** : There are no data available on the mixture itself.

**Respiratory** : There are no data available on the mixture itself.

#### Sensitization

##### Conclusion/Summary

**Skin** : There are no data available on the mixture itself.

**Respiratory** : There are no data available on the mixture itself.

#### Mutagenicity

**Conclusion/Summary** : There are no data available on the mixture itself.

#### Carcinogenicity

**Conclusion/Summary** : There are no data available on the mixture itself.



## Section 11. Toxicological information

### Classification

Product/ingredient name	OSHA	IARC	NTP
carbon black	-	2B	-
titanium dioxide	-	2B	-

#### Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

### Reproductive toxicity

**Conclusion/Summary** : There are no data available on the mixture itself.

### Teratogenicity

**Conclusion/Summary** : There are no data available on the mixture itself.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	Category 2	-	-

**Target organs** : Contains material which causes damage to the following organs: skin, eyes.  
Contains material which may cause damage to the following organs: kidneys, lungs, the nervous system, the reproductive system, upper respiratory tract, , bone marrow, testes.

### Aspiration hazard

Not available.

### Information on the likely routes of exposure

#### Potential acute health effects

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

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

**Skin contact** : May cause an allergic skin reaction.

**Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

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

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

**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness

## Section 11. Toxicological information

**Ingestion** : No specific data.

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

**Conclusion/Summary** : There are no data available on the mixture itself. Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

### Short term exposure

**Potential immediate effects** : There are no data available on the mixture itself.

**Potential delayed effects** : There are no data available on the mixture itself.

### Long term exposure

**Potential immediate effects** : There are no data available on the mixture itself.

**Potential delayed effects** : There are no data available on the mixture itself.

### Potential chronic health effects

**General** : May cause damage to organs through prolonged or repeated exposure. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** : May cause genetic defects.

**Reproductive toxicity** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
RXF BLACK TEXTURE POLY 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2104.6 100	N/A N/A	N/A N/A	N/A N/A	N/A N/A

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
titanium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours

### Persistence and degradability

Not available.

### Bioaccumulative potential

## Section 12. Ecological information

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	-0.8	-	low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

## Section 13. Disposal considerations

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

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

## 14. Transport information

	DOT	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

### Additional information

DOT : None identified.

IMDG : None identified.

IATA : None identified.

Product code PCT99106

Product name RXF BLACK TEXTURE POLY

Date of issue 14 January 2022 Version 17

### 14. Transport information

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

**Transport in bulk according to IMO instruments :** Not applicable.

### Section 15. Regulatory information

United States

**United States inventory (TSCA 8b) :** All components are active or exempted.

**U.S. Federal regulations :**

SARA 302/304

SARA 304 RQ

: Not applicable.

Composition/Information on ingredients

No products were found.

SARA 311/312

: COMBUSTIBLE DUSTS

Classification

COMBUSTIBLE DUSTS - Category 1  
SKIN SENSITIZATION - Category 1  
GERM CELL MUTAGENICITY - Category 1  
CARCINOGENICITY - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Composition/Information on ingredients

Name	%	Classification
1,3,5-tris(oxyanylimethyl)-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione	≥1.0 - ≤5.0	COMBUSTIBLE DUSTS - Category 3 ACUTE TOXICITY (oral) - Category 3 SERIOUS EYE DAMAGE - Category 1B SKIN SENSITIZATION - Category 1B GERM CELL MUTAGENICITY - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
carbon black	≥1.0 - ≤5.0	COMBUSTIBLE DUSTS EXPOSURE) - Category 2 COMBUSTIBLE DUSTS CARCINOGENICITY - Category 2 CARCINOGENICITY - Category 2
titanium dioxide	≤1.0	CARCINOGENICITY - Category 2

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

**WARNING:** Cancer - www.P65Warnings.ca.gov.



## Section 16. Other information

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

Health : 2 \* Flammability : 0 Physical hazards : 0

(\* ) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

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

Health : 2 Flammability : 0 Instability : 0

Date of previous issue : 6/18/2021

Organization that prepared the SDS : EHS

### Key to abbreviations

: ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
N/A = Not available  
SGG = Segregation Group  
UN = United Nations

✔ Indicates information that has changed from previously issued version.

### Disclaimer

*The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.*



## 1. Product and Company Identification

### Product identifier

**Product code**

ES542N49

**Product name**

SATIN BLACK EPOXY

### Manufacturer or distributor

**Distributor**

Protech Chemicals Ltd.  
7600 Henri-Bourassa West  
Saint-Laurent, Québec  
Canada, H4S 1W3  
Tel:(514)745-0200  
US tel: (862)702-3537  
Fax:(514)745-5774

**Manufacturer**

Protech Chemicals Ltd.  
7600 Henri-Bourassa West  
Saint-Laurent, QC  
Canada, H4S 1W3  
Tel: (514) 745-0200  
Fax: (514) 745-5774

**E-Mail**

info@protechpowder.com

**Material uses**

Powder Coating for professional use.

**Emergency telephone**

Anti-Poison Centre: 1-800-463-5060 / (418) 656-8090

## 2. Hazards Identification

### Classification of the substance or mixture

**Classification according to 2012 OSHA HCS (29 CFR 1910.1200)**

Skin Sensitisation (Cat 1), H317  
Eye Irritation (Cat 2), H319  
Carcinogenicity (Cat 1A), H350  
Combustible Dust

### Label elements

**Signal word**

DANGER

**Hazard pictograms**

GHS07



GHS08



**Hazard statement(s)**

H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H350	May cause cancer.

**OSHA statement**

May form combustible dust concentrations in air.

**Precautionary statement(s)**

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P290	Avoid generation or accumulation of dust.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P321	Specific treatment (see ... on this label).
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P404	Store in a closed container.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local regulations.

**Supplemental information**

Not applicable.

**Other hazards**

Not applicable.

### 3. Composition / Information on Ingredients

**Mixtures****Substances presenting a hazard within the meaning of WHMIS 2015**

<u>Component name</u>	<u>CAS No.</u>	<u>% by weight</u>
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis(4,1phenyleneoxymethylene)]bis[oxiran]e]	25036-25-3	35 - 40
Calcium carbonate	1317-65-3	30 - 35
Benzene-1,2,4,5-tetracarboxylic acid, compound with 4,5-dihydro-2-phenyl-1H-imidazole	54553-90-1	1 - 5
Carbon black	1333-86-4	0.1 - 1.0
Crystalline silica	14808-60-7	0.1 - 1.0

### 4. First - Aid Measures

**General**

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

**Inhalation**

Remove to fresh air, keep patient warm. Keep at rest. If breathing is irregular or stopped, administer artificial respiration. Give nothing by mouth. If unconscious place in recovery position and seek medical advice.

**Ingestion**

If swallowed, do not induce vomiting. Keep at rest. Get medical attention immediately. Never give anything by mouth to an unconscious person.

**Skin contact**

Immediately remove all contaminated clothing. Wash skin thoroughly with soap and water or use recognised skin cleanser. DO NOT use solvents or thinners.

**Eye contact**

Remove contact lenses, keep eyelids open. Flush with plenty of clean, fresh water (10 - 15 min.). If irritation persists, seek medical attention.

**Most important symptoms and effects, both acute and delayed**

No information available.

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**5. Fire - Fighting Measures****Suitable extinguishing media**

Water spray, dry chemicals, CO<sub>2</sub> or foam. If aluminum or zinc appears in sections 3, 8 or 9 use dry chemicals only.

**Unsuitable extinguishing media**

High volume water jet.

**specific hazards arising from the hazardous product**

Decomposition products may contain: carbon oxides, nitrogen oxides, sulphur oxides or metal oxide / oxides.

**Special protective equipment for firefighters**

Firefighters should wear appropriate equipment and self-containing breathing apparatus with a full face -piece operated in positive pressure mode.

**6. Accidental Release Measures****Personal precautions, protective equipment and emergency procedures**

No action should be taken involving any personal risk or without suitable training. Evacuate surrounding areas, shut of all ignition sources, and provide adequate ventilation. Avoid breathing powder. Put appropriate personal protection equipment. Do not touch or walk through spilled material.

**Methods and materials for containment and cleaning up**

Small spill: Move containers from spill area. Use appropriate tools to put spilled solid in an identified waste disposal container. Dispose of according to local and regional authority requirements.

Large spill: Move containers from spill area. Prevent entry into sewers, water courses or confined areas. Avoid creating dusty conditions, use water spray to reduce dust. Eliminate all source of ignition. Use appropriate tools to put spilled solid in an identified waste disposal container. Dispose of according to local and regional authority requirements.

**7. Handling and Storage****Handling**

Use appropriate personal protective equipment (see section 8). Precautions should be taken to prevent formation of dust in concentrations above flammable, explosive or occupational exposure limits. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Preparation may charge electrostatic: always use earth leads when transferring from one container to the other. Use only with adequate ventilation. Eating, drinking and smoking should be prohibited in areas where this material is handled, stores and processed. Wash hands and face before eating, drinking and smoking. Avoid contact with skin and eyes. Avoid inhalation of dust, particulates and spray mist arising from the application of this powder.

**Storage**

Store between 5°C and 25°C in a dry, well ventilated place away from sources of heat and direct sunlight. Keep container tightly close and sealed until ready to use. Isolate from source of heat, sparks and open flame. Do not store in unlabeled containers.

**8. Exposure Controls / Personal Protection****Exposure controls**

<u>Component name</u>	<u>CAS No.</u>	<u>Exposure guidelines</u>
Crystalline silica	14808-60-7	TLV: 0.05 mg/m <sup>3</sup> (ACGIH) PEL: 10 mg/m <sup>3</sup> (%SiO <sub>2</sub> +2, OSHA) TWA: 0.05 mg/m <sup>3</sup> (NIOSH)

**Appropriate engineering controls**

Use local exhaust ventilation or other engineering controls to maintain air born levels below exposure limits. All dust control equipment such as local exhaust ventilation and material transport systems involved in handling this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.

**Individual protection measures, such as personal protective equipment****Eye protection**

Safety eye-wear should be used when there is a likelihood of exposure.



**Skin protection**

Personal should wear protective clothing. Avoid prolonged contact with skin. Use gloves when handling powder. Barrier creams applied before powder use may help to protect the exposed areas of the skin but they should not be applied once exposure has occurred.

**Respiratory protection**

Avoid breathing dust. Mechanical exhaust is recommended. Use a NIOSH approved respirator to remove particles. Respirator selection must be based on known or anticipated exposure levels.

**Hygiene measures**

Use good personal hygiene practices. Wash hands before eating, drinking and using the lavatory and at the end of the working period. Wash contaminated clothing before reuse. Contaminated clothing should be washed independently of all other types of clothing.

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## 9. Physical and Chemical Properties

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**Appearance**

Powder

**Color**

Black

**Odour**

Not available.

**Odour threshold**

Not available.

**pH**

Neutral

**Melting point**

Not available.

**Boiling point**

Not available.

**Flash point**

Closed cup > 300°C

**Evaporation rate**

Not available.

**Flammability (for solid and gas)**

Not available.

**Upper explosion limit**

Not available.

**Lower explosion limit**

Not available.

**Vapour pressure**

Not available.

**Vapour density**

Not available.

**Relative density**

1.2 - 1.9 g/cm<sup>3</sup>

**Solubility in water**

Insoluble in cold or hot water.

**Partition coefficient: n-octanol/water**

Not available.

**Auto-ignition temperature**

Not available.

**Decomposition temperature**

Not available.

**Viscosity**

Not available.

**Combustible dust data**

KST value

(110 - 215) ± 10%

ST Class  
1 - 2

Maximum explosion pressure  
(8.2 - 10.2) ± 10%

Minimum ignition energy  
3 - 30 mj

Minimum ignition temperature  
420 - 490 °C

Minimum explosion concentration  
70 - 125 g/m<sup>3</sup>

## 10. Stability and Reactivity

### Reactivity

Not reactive under recommended handling and usage conditions.

### Chemical stability

The product is stable under recommended handling, storage and usage conditions.

### Possibility of hazardous reactions

The product is stable under recommended handling, storage and usage conditions, hazardous reactions will not occur.

### Conditions to avoid

Not applicable.

### Incompatible materials

Strong oxidizing materials, acids, strong alkali.

### Hazardous decomposition products

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

## 11. Toxicological Information

### Likely routes of exposure

Inhalation, skin contact, eye contact and ingestion

### Acute toxicity

#### Component name

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis(4,1phenyleneoxymethylene)]bis[oxiran]e]

Carbon black

Crystalline silica

#### Result LD50/LC50

LD50/ORAL/RAT:> 2000 mg/kg  
LD50/DERMAL/RABBIT:> 2000 mg/kg

LD50/oral/rat: >15400 mg/kg  
LD50/dermal/rabbit: >3000 mg/kg

LD50/oral/rat: >500 mg/kg

### Carcinogenicity classification

#### Component name

Carbon black

Crystalline silica

#### ACGIH

A4

A2

#### IARC

2B

1

#### EPA

#### NIOSH

CA

#### NTP

K

#### OSHA

#### Remarks

Carbon black

ACGIH has classified Carbon Black as A4- Non Classifiable as a Human Carcinogen.

IARC reaffirmed in 2006 that there is "inadequate evidence" from human health studies to assess whether carbon black causes cancer for humans.

IARC concludes that there is "sufficient evidence" in experimental animal studies for the carcinogenicity of carbon black. The classification for carbon black Group 2B was based in IARC's guidelines which require such a classification if one species exhibits carcinogenicity in two or more animal studies.

### Skin corrosion/irritation

Not applicable.

### Serious eye damage/eye irritation

Causes serious eye irritation.

### Skin sensitization

May cause an allergic skin reaction.

**Respiratory sensitization**

Not applicable.

**Mutagenicity**

Not applicable.

**Developmental toxicity**

Not applicable.

**STOT SE**

Not available.

**STOT RE**

Not available.

**Aspiration hazard**

Not classified.

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**12. Ecological Information**

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**Aquatic ecotoxicity**

Not available.

**Persistence and degradability**

No information available.

**Bioaccumulative potential**

No information available.

**Mobility in soil**

No information available.

**Other adverse effects**No information available.

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**13. Disposal Considerations**

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**Waste disposal**Disposal should be in accordance with applicable regional, national and local laws and regulations.

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**14. Transport Information**

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**Transport (DOT / IATA / IMDG) Classification**

No component designated.

**Transport in bulk**

No information available.

**Special precautions in connection with transport or conveyance either within or outside the premises**Not applicable.

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**15. Regulatory Information**

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**TSCA**

All components of this product are included in the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

**DSL**

All components of this product are included in the Domestic Substance List (DSL).

**SARA 313**

This product contains the following chemical(s) subjected to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and to 40 CFR 372:

**CERCLA****NPRI**

Not applicable.

**California prop. 65**

Carbon black - 1333-86-4 : Cancer hazard

Crystalline silica - 14808-60-7 : Cancer hazard

## 16. Other Information

### HMIS

Health : \*1  
 Flammability: 1  
 Physical hazard: 1  
 Personal Protection: F

### NFPA

Health : 1  
 Fire: 1  
 Reactivity: 0  
 Specific Hazard:

**Refer to NFPA 654, standard for the prevention of fire and dust explosions from the manufacturing, processing and handling of combustible particulate solids, for safe handling.**

### Abbreviations

HMIS : Hazardous Materials Identification System

\* - Chronic Hazard, 0 - Minimal Hazard, 1 - Slight Hazard, 2 - Moderate Hazard, 3 - Serious Hazard, 4 - Severe Hazard

NFPA : National Fire Protection Association

Health: 4 – Deadly, 3 -Extreme danger, 2 – Hazardous, 1 - Slightly hazardous, 0 - Normal material

Fire: 4 - Below 73°F - very flammable, 3 - 73 to 100F – flammable, 2 - 101 to 200F –combustible, 1 - Over 200F -slightly combustible, 0 - Will not Burn

Reactivity: 4- May detonate, 3- Shock or heat may detonate, 2- violent chem. Reaction, 1- Unstable if heated, 0- Stable, W- Use no water

Specific Hazard: OXY- Oxidizer, ACID- Acid, ALK- Alkali, COR- Corrosive, W- Use no water

ACGIH : American Conference of Governmental Industrial Hygienists

ACGIH Carcinogenicity: A1 - Confirmed Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

A4 - Not Classifiable as a Human Carcinogen

A5 - Not suspected as a Human Carcinogen

IARC : International Agency for Research on Cancer

IARC classification: 1- Carcinogenic to Humans

2A - Probably carcinogenic to humans

2B - Possibly carcinogenic to humans

3 - Not classifiable as to its carcinogenicity to humans

4 - Probably not carcinogenic to humans

EPA : Environmental Protection Agency

NIOSH : National Institute for Occupational Safety and Health

CA - carcinogenic

NTP : National Toxicology Program

K - Known to be human carcinogens

R - Reasonably anticipated to be human carcinogen

OSHA : Occupational Safety and Health Administration

DOT : Department of Transportation

IMDG : International Maritime Dangerous Goods

IATA : International Air Transport association

TSCA : Toxic Substance Control Act

DSL : Domestic Substance List

SARA313 : Superfund Amendments and Reauthorization Act - Toxic Chemical Release Inventory (Section 313)

NPRI : National Pollutant Release Inventory

CERCLA : Comprehensive Environmental response, Compensation and Liability Act

California Prop. 65 : California Proposition 65

STOT SE : Specific Target Organ Toxicity - Single Exposure

STOT RE : Specific Target Organ Toxicity – Repeated Exposure

### Date of preparations

JUNE 7, 2018

To the best of knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazard and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.