SAFETY DATA SHEET

Section 1 – Identification

Product Identifier: PrevCor
Other means of identification: Not Available
Product Type: Liquid

Part Number: PC1

Recommended Use: Thermal Barrier - Corrosion resistance

Restrictions on Use:

Industrial Use Only
Keep out of reach of children.

Manufacturer / Supplier:
Tech Line Coatings, Inc
26844 ADAMS AVE.
MURRIETA, CA 92562
USA
Phone 951-304-0834
Fax 951-461-9658
www.techlinecoatings.com

Emergency Phone: (Chemtrec) 1-800-424-9300

Section 2 – Hazards Identification

OSHA status: This material is considered hazardous by the OSHA Hazard Communication Standard (29CFR 1910.1200)

Classification of the mixture: Corrosive – category 3
Acute Toxicity (Oral) – category 3
Carcinogenicity category 3

Signal Word: Danger
Hazard Statements: Toxic if swallowed May cause cancer

Symbols:

Signal word : Danger

Hazard statements : May be harmful if inhaled.
Toxic if swallowed.
May cause cancer.

Precautionary statements
Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
Response : IF exposed or concerned: Get medical attention. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth.
Storage : Store locked up.
Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations
Hazards not otherwise classified: None known

Section 3 – Composition / Information On Ingredients

Substance/mixture: Mixture
Other means of identification: Not available.

CAS number/other identifiers: Not available
Product code : PrevCor

Section 3 – Composition / Information On Ingredients

Component Name	Common Name / Synonyms	CAS#	% of Weight
Aluminum	Atomized Aluminum powder	7429-90-5	15-35%
Water		7732-18-15	55-80%
Phosphoric Acid	H3O4P	7664-38-2	<10%
Chromium Trioxide	Chromic Anhydride, Chromium(VI) oxide	1333-82-0	< 1%
Chromium	Chromium(III) oxide	1308-38-9	<1%

Components not listed above are non-hazardous.
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

General advise:

- Consult a physician. Show this Safety Data Sheet to the doctor in attendance. Move out of dangerous area.

After EYE Contact:

- Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

After SKIN Contact:

- Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

After INHALATION:

- Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention.

After SWALLOWING:

- Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Inhalation: Harmful if inhaled
Ingestion: Toxic if swallowed.
Skin contact: No known significant effects or critical hazards.
Eye contact: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation: Harmful if inhaled
Ingestion: Toxic if swallowed.
Skin contact: No known significant effects or critical hazard
Eye contact: No known significant effects or critical hazards.

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

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled

Specific treatments: No specific treatment

Section 4 – First Aid Measures

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 section 11 for additional information

Section 5 – Fire Fighting Measures

Not Flammable

Extinguishing Media:

- Use an extinguishing agent suitable for the surrounding fire.

Unsuitable Media:

- None Known

Special Fire Fighting Procedures:

- Use full protective equipment, including self contained breathing apparatus

Unusual Fire And Explosion Hazards:

- During emergency conditions, overexposure to decomposition products may cause a health hazard.

Specific Hazards Arising from the Chemical:

- Water runoff can cause environmental damage, dike and collect water used to fight fire.
- In a fire or if heated, a pressure increase will occur and the container may burst

Decomposition products may include the following materials:

- metal oxide/oxides
- phosphorus oxides

Special protective actions for fire-fighters :

- 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.

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. Do not breathe vapor or mist. 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: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor

Large spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Additional Information:

- See Section 7 for safe handling information.
- See Section 8 for PPE information
- See Section 13 for disposal information

Section 7 – Handling And Storage

Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). 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 vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

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: Store in accordance with local regulations. 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. 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.

Conditions for safe storage: Store at 55-90°F (13-32°C).

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ingredient name	Exposure limits
Aluminum	**ACGIH TLV (United States, 6/2013).** TWA: 1 mg/m³ 8 hours. Form: Respirable fraction
Phosphoric acid	**ACGIH TLV (United States, 6/2013).** TWA: 1 mg/m³ 8 hours. STEL: 3 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 1 mg/m³ 8 hours. STEL: 3 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2013).** TWA: 1 mg/m³ 10 hours. STEL: 3 mg/m³ 15 minutes. **OSHA PEL (United States, 2/2013).** TWA: 1 mg/m³ 8 hours
chromium (VI) trioxide	**ACGIH TLV (United States, 6/2013).** **TWA: 0.05 mg/m³, (measured as Cr) 8 hours.** **OSHA PEL 1989 (United States, 3/1989).** CEIL: 0.1 mg/m³, (as CrO3) **OSHA PEL Z2 (United States, 2/2013).** CEIL: 1 mg/10m³ **NIOSH REL (United States, 10/2013).** TWA: 0.0002 mg/m³, (as CR) 8 hours. **OSHA PEL (United States, 2/2013).** TWA: 0.005 mg/m³, (as Cr) 8 hours.
chromium (III) hydroxide	**ACGIH TLV (United States, 6/2013).** TWA: 0.5 mg/m³, (measured as Cr) 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 0.5 mg/m³, (as Cr) 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 0.5 mg/m³, (as CR) 8 hours. **OSHA PEL (United States, 2/2013).** TWA: 0.5 mg/m³, (as Cr) 8 hours.

Appropriate engineering controls: 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

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Appropriate engineering controls: 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.

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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection:

Hand protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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. Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products. 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.

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: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form :	liquid
Color :	Grey green
Odor :	Slightly musty smell to no odor
Odor Threshold:	Not Established
pH :	1.8 to 2.6
Melting point / Freezing point:	Not Established
Initial boiling point :	Not Established
Flash point :	> 212° F (Water based)
Evaporation Rate:	Not Established
Upper/lower flammability or explosive limits:	Not Established

Vapor pressure	Not Established
Vapor density	Not Established
Relative density	Not Established
Solubility(ies)	Water: somewhat soluble
Partition coefficient: n-octanol/water	Not Established
Auto-ignition temperature	Not Established
Decomposition temperature	Not Established
Viscosity	Not Established
Total VOC	0 lbs/gal

SECTION 10 STABILITY AND REACTIVITY

Reactivity	No data available on mixture
Chemical stability	Stable
Possibility of hazardous reactions	No data available on mixture
Conditions to avoid (e.g., static discharge, shock, or vibration)	No data available on mixture
Incompatible materials	Magnesium, strong alkali's, strong reducing agents, strong oxidizing agents.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous products should not be produced.

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute Toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Phosphoric acid chromium (VI) trioxide	LD50 Oral LD50 Oral	Rat Rat	1.25 g/kg 80 mg/kg	

Irritation/Corrosion
Not available.

Sensitization
Not available.

Mutagenicity
Not available.

Carcinogenicity

IARC:	1 - Group 1: Carcinogenic to humans (Chromium trioxide) 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Chromium (III) oxide)
ACGIH:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP:	Known to be human carcinogen (Chromium trioxide)
OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

This product contains a component that has been reported to be carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

SECTION 11 TOXICOLOGICAL INFORMATION

Classification

Product/ingredient name	OSHA	IARC	NTP
chromium (VI) trioxide	Present	1	Known to be a human carcinogen.

Reproductive toxicity
Not available

Teratogenicity
Not available

Specific target organ toxicity (single exposure)
Not available.

Specific target organ toxicity (repeated exposure)
Not available.

Aspiration hazard
Not available.

Carcinogenicity

IARC: 1 - Group 1: Carcinogenic to humans (Chromium trioxide)
3 - Group 3: Not classifiable as to its carcinogenicity to humans (Chromium (III) oxide)

ACGIH: Known to be human carcinogen (Chromium trioxide)

NTP: Known to be human carcinogen (Chromium trioxide)

OSHA: Can cause lung cancer

This product contains a component that has been reported to be carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, Inhalation.
Potential acute health effects:

Eye contact : No known significant effects or critical hazards
Inhalation : Can cause lung cancer
Skin contact : Contact with eyes may cause irritation.
Ingestion : Toxic if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics
Skin contact: Contact with eyes may cause irritation.
Ingestion: No specific data.
Inhalation: can cause irritation to the nose and throat. Symptoms may include runny nose, sneezing, coughing, itching and a burning sensation
Eye contact : No specific data

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

Potential immediate effects: Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects: Not available.
Potential delayed effects : Not available.

Potential chronic health effects
Not available.

General : No known significant effects or critical hazards.
Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.

SECTION 11 TOXICOLOGICAL INFORMATION

Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity
Acute toxicity estimates

Route	ATE value
Oral	250.7 mg/kg*

*** Ingredient**

SECTION 12 ECOLOGICAL INFORMATION

General Comments: Do not allow material to be released into the environment without proper governmental permits

Environmental Toxicity:

Aluminum, Atomized

Toxicity to fish	No data available
Toxicity to daphnia and other aquatic invertebrates	No data available

Phosphoric Acid

Toxicity to fish	LC50: 75.1 mg/l Exposure time: 96 h Species: Oryzias latipes (Japanese medaka)
Toxicity to daphnia and other aquatic invertebrates	EC50: 376 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea)
Toxicity to algae	EC50: 32 mg/l Exposure time: 72 h Species: Pseudokirchneriella subcapitata (green algae)

Chromium Trioxide

Toxicity to fish	LC50 - Tilapia mossambica - 21.05 - 141.38 mg/l - 96.0 h LC0 - Leuciscus idus (Golden orfe) - 100 mg/l - 48.0 h
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 0.8 mg/l - 48 h

Chromium

Toxicity to fish	No data available
Toxicity to daphnia and other aquatic invertebrates	No data available
Toxicity to algae	No data available

Persistence and degradability
no data available

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
water	-1.38	-	low

Mobility in soil
no data available

Other adverse effects
no data available

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Disposal Method:
Disposal should be made in accordance with federal, state and local regulations. Recovered non-usable material is a RCRA hazardous waste. Treatment, storage, transportation and disposal must be in accordance with EPA and State regulation under the authority of the Resource Conservation and Recovery Act (RCRA) 40 CFR parts 260-271. A competent and properly permitted contractor should do appropriate disposal.

SECTION 14 TRANSPORTATION INFORMATION

Hazardous for Shipping:

DOT classification: UN 3264, Corrosive liquid, acidic,inorganic, n.o.s., class 8, packing group III,
IATA classification: UN 3264, Corrosive liquid, acidic,inorganic, n.o.s., class 8, packing group III,
IMDG: UN 3264, Corrosive liquid, acidic,inorganic, n.o.s., class 8, packing group III, Marine pollutant

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

SECTION 15 REGULATIONS

U.S. Federal regulations:	International Inventory Legend
TSCA 6 final risk management: chromium (VI) trioxide **TSCA 8(a) CDR Exempt/Partial exemption**: Not determined **TSCA 12(b) annual export notification**: chromium (VI) trioxide **Clean Air Act Section 112 (b) Hazardous AirPollutants (HAPs): Listed** **Clean Air Act Section 602 Class I Substances:** Not listed **Clean Air Act Section 602 Class II Substances :** Not listed **DEA List I Chemicals (Precursor Chemicals):** Not listed **DEA List II Chemicals (Essential Chemicals): Not listed** **Clean Water Act (CWA) 307: chromium (VI) trioxide; chromium (III) hydroxide** **Clean Water Act (CWA) 311**: Phosphoric acid	**DSL:** Canada - Domestic Substance List **NDSL:** Canada - Non-Domestic Substance List **IECSC: China** - Inventory of Existing Chemical Substances China **EINECS:** EU Inventory of Existing Commercial Chemical Substances **ELINCS:** EU List of Notified Chemical Substances **ECL:** Korea - Existing Chemicals List **AICS:** Australia - Inventory of Chemical Substances **ENCS:** Japan - Existing and New Chemical Substances **PICCS:** Philippines - Inventory of Chemicals and Chemical Substance

U.S. Regulations:

Component	SARA 302	SARA 311 / 312	SARA 313	Massachusetts RTK	Pennsylvania RTK	New Jersey RTK	California Prop 65 list
Aluminum, Atomized	No	No	No	No	No	No	No
Phosphoric Acid	No	Yes	No	Yes	Yes	Yes	No
Chromium Trioxide	No	Yes	Yes	Yes	Yes	Yes	Yes
Chromium	No	No	Yes	Yes	Yes	Yes	No

SARA 311 / 312 Hazards: Acute Health Hazard, Chronic Health Hazard

SECTION 16 OTHER INFORMATION

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