DynaTrol®II

General Purpose Polyurethane Sealant

PECORA CORPORATION

SPECIFICATION DATA SHEET

BASIC USES

- Dynatrol® II is designed for use in expansion and control joints in precast panels, tilt walls and curtainwalls; bedding panels, coping joints, window and door perimeters, glazing, traffic, acoustical and firestopping applications. Its wide color range and low modulus make it highly effective in exterior insulated finish systems (EIFS).

MANUFACTURER

Pecora Corporation
165 Wambold Road
Harleysville, PA 19438
Phone: 215-723-6051
800-523-6688
Fax: 215-721-0286
Website: www.pecora.com

PRODUCT DESCRIPTION

Dynatrol® II is a general purpose non-sag elastomeric sealant that creates a tenacious bond and watertight seal between materials of similar or dissimilar surface textures, porosities or expansion coefficients.

Fire Rated Systems: Four-hour fire and temperature rated wall and floor Design Joint systems up to 3" (75 mm) wide can be designed with Ultra Block® fire-blocking material and/or mineral wool fire safing.

These designs have been full scale tested and classified by Underwriters Laboratories, Inc. and appear in the UL Fire Resistance Directory, Vol. 2.

Ref: Standard "Fire Tests of Building Construction Materials," ANSI/UL 263, ASTM E119, NFPA No. 251.

Consult Pecora Technical Bulletin #85J (PEC201) for a complete listing of Pecora Firestop Systems.

Ultra-Block® is a product of Backer Rod Mfg. Co., Denver, CO.

Limitations: Dynatrol® II should not be used:

- over existing acrylic coatings without prior approval of mock up and associated field testing,
- Light colors can yellow if exposed to direct gas fired heating elements during the initial cure period.
- as a cap, heel or toe bead in glazing systems utilizing high-performance glass or acrylic polycarbonate sheet,
- in areas exposed to harsh chemicals.
- light colors may yellow in interior applications subject to fluorescent lighting or high levels of VOC's.

TECHNICAL DATA

Federal Specification TT-S-00227E, Class A, Type II; ASTM C-920, Type M, Grade NS, Class 50, use M,A,G,T1, and Other, CAN/CGSB-19.24-M90.

Dynatrol® II will withstand structural movement of 50% in extension and 50% in compression without adhesive or cohesive failure in properly designed joints.

Joint Design: Good joint design in the construction industry dictates four times (4x) the anticipated movement of building components be used when calculating joint width. The theoretically derived 2:1 movement factor is based on thermal movement alone and does not allow for variances found at the jobsite and therefore should not be used.

The 4:1 design factor accommodates both thermal movement and wide variations in tolerances of construction materials, fabrication and erection often found in the field. This will also accommodate joints installed narrower than originally designed. The width or depth of the joint should not be less than 1/4" (6 mm). In joints up to 1/2" (12 mm) wide, the depth of the sealant should be equal to the width. In joints wider than 1/2" (12 mm) but not exceeding 2" (50 mm), the depth should be maintained at 1/2" (12 mm). For joints wider than 2" (50 mm), please consult our Technical Services department. Please refer to Technical Bulletin 104 for guidelines specific to applications exposed to pedestrian or vehicular traffic.

PACKAGING

- 1 1/2-gallon (347 cu. in.) (5.7 L) unit including Base and Activator Color Pack is packaged separately

COLOR

- Pecora's Color-Pack system has pre-measured tint paste for 51 standard colors.
- Custom colors are available upon request: minimum 5 color packs.
- The base material is not to be used without addition of color.
- Also available in pre-tinted limestone – this version eliminates need for color pack.

Joint sealants do not change volume with expansion or compression - only shape; the greater the change in shape (strain), the greater the stress on the sealant and bond line.

INSTALLATION

Surface Preparation: Joint surfaces must be dry, clean and free of all contamination. Glass, metal and other nonporous surfaces must be free of any coatings and wiped clean with solvent. Precast panels using form-release agents other than polyethylene film must be sandblasted or mechanically abraded and blown or brushed dust free.

Priming: Not required on glass or annodized aluminum and usually not necessary on most other common building materials. However, varieties of brick, natural stone, plastics, paints, coatings and other surface treatments often present the need for priming.

TYPICAL PHYSICAL PROPERTIES at 77°F (25°C), 50% RH

Test Property	Value	Test Procedure
Dynamic Movement Capability (%)	+/-50	ASTM C719
Adhesion-in-peel (pli)	28, (4.kN/m) No adhesion loss*	ASTM C794
Adhesion-in-peel after UV exposure (pli)	28, (4.8 kN/m) No adhesion loss	ASTM C794
Application life (hours)	2	ASTM C603
Effect of acceleration weathering	No cracking	ASTM C793
Effect of heat aging (%)	1.4	ASTM C792
Extrusion rate (seconds)	4	ASTM C603
Hardness, Shore A	25-35	ASTM C661
Rheological properties	0	ASTM C639
Stain & color change	None	ASTM C510
Tack-free time (hours)	Min. 72 hrs.	ASTM C679
VOC Content Mixed Product (g/L)	<1	ASTM D3960
VOC Emissions (TVOC)	Pass (All Exposure Scenarios)	CDPH v1.2-2017

** When tested for +50% movement.

* Aluminum, glass and primed concrete substrates.

Since Pecora Architectural Sealants are applied to varied substrates under diverse environmental conditions and construction situations it is recommended that substrate testing be conducted prior to application.

DynaTrol®II

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Due to the number and unpredictable nature of these substrates, a field or laboratory test is recommended to determine the adhesion of Dynatrol® II with or without primer.When priming is indicated, P-75 or P-150 should be used on porous substrates and P-120 on nonporous substrates or consultTechnical Services. All primers and sealents to be used in accordance with localVOC regulations. Sealant should be applied within 8 hours after priming; otherwise, it will be necessary to reprime.

All Exterior Insulation Finish Systems must be primed with P-75 or P-150. Consult PecoraTechnical Services for specific EIFS recommendations.

Also, because architectural stones such as marble and granite vary considerably in porosity, some bleeding of the sealant into the substrate is a possibility. Again, a field or laboratory test to confirm this possibility is recommended.

Pecora offers complimentary adhesion, compatibility and stain testing in its laboratory on actual field samples of substrate from the jobsite or on project specific representative samples. Contact Technical Services for details.

Joint Backing: Backer rod controls the depth of the sealant and allows it to be applied under pressure. Closed-cell polyethylene or bi-cellular polyolefin foam is recommended. Use a size that will compress 25% when inserted into the joint. In joints too shallow for backer rod, use a bond-breaker tape to prevent undesirable three-sided adhesion.

Application: The Base andActivator (nested in Base container) are formulated and pre-measured to function as a unit. Do not interchange Base orActivator components from one shipment with those from another. The two components should be blended thoroughly along with the desired Color Pack for a minimum of six (6) minutes in accordance with mixing instructions appearing on the container label.

Do not thin with solvents or adulterate it in any way.Apply sealant to joints, using standard caulking equipment. Application life is 2-3 hours at 77˚ F (25˚ C), 50% R.H. Higher temperature and/or humidity will shorten this application life.

In control and construction joints in interior industrial flooring subjected to fork truck traffic, Pecora DynaFlex two part high durometer urethane is recommended for better protection against joint edge spalling. In areas of pedestrian traffic where firmersupport and resistance to puncture (i.e. high heels) is considered more important than elongation and flexibility, Pecora Dynaflex two-part, non-sag polyurethane sealant with a 55 Shore A hardness is recommended.

Tooling: Tool immediately to assure full adhesion.Tooling without a slicking agent is preferred but if conditions require one, mineral spirits is recommended. (See Caution statement.)

Painting: Due to variability in paint products and their raw materials, installation conditions, installation techniques as well as primers, it is required that contractors who apply paint, pretest paint onto sealant, to determine suitability. Oil based paints can exhibit a slow/noncuring condition. Field test is required and user must determine suitability. Paintable after 72 hours. ConsultTechnical Bulletin # 31 for further information.

Clean Up: Immediately remove all excess sealant and smears adjacent to joints with mineral spirits.Also use mineral spirits to clean uncured sealant from equipment. Remove cured sealant by scraping, sandpapering, etc. (Caution: mineral spirits is flammable and toxic. Observe manufacturer's precautions.)

Storage Life: Dynatrol® II has a shelf life of approximately one (1) year from the date of manufacture when stored in sealed containers at temperatures lower than 80˚F (26˚C). Dynatrol® II performs equally well during any part of this shelf life.

Precautions: Contains diisocyantates. Contact with uncured sealant, with vapors generated during curing, or with dust formed from cured sealant may cause eye, skin, or respiratory tract irritation or allergic reaction. Do not breathe fumes, dusts, vapors or mist. Keep container closed. Use only with adequate ventilation or wear an appropriate NIOSH-approved respirator. Harmful if swallowed. Do not swallow or take internally. Do not get in eyes, on skin, or on clothing.Wash thoroughly after handling. Keep away from heat, sparks and flame. Repeated contact may, without symptoms, increase susceptibility of these effects. Refer to material Safety Data sheet (MSDS) for more information.

FOR PROFESSIONAL USE ONLY. KEEP OUT OF THE REACH OF CHILDREN.

AVAILABILITY AND COST

Pecora products are available from stocking distributors nationwide.For the name and telephone number of your nearest representative, call the number below or visit our website at www.pecora.com.

WARRANTY

Pecora Corporation warrants its products to be free of defects. Under this warranty, we will provide, at no charge, replacement materials for, or refund the purchase price of, any product proven to be defective when used in strict accordance with our published recommendations and in applications considered by us as suitable for this product.The determination of eligibility for this warranty, or the choice of remedy available under this warranty, shall be made in our sole discretion and any decisions made by Pecora Corporation shall be final.This warranty is in lieu of any and all other warranties, expressed or implied, including but not limited to a warranty of merchantability or fitness for a particular purpose and in no case will Pecora be liable for damages other than those expressly stated in this warranty, including but not limited to incidental or consequential damages.

MAINTENANCE

If the sealant is damaged and the bond is intact, cut out the damaged area and prime with P-75 or P-150 primer and recaulk. If the bond has been affected, remove the sealant, clean and prepare the joint in accordance with instructions under "Installation."

TECHNICAL SERVICES

Pecora representatives are available to assist you in selecting an appropriate product and to provide on-site application instructions or to conduct jobsite inspections. For further assistance call our Technical Service Department at 800-523-6688 or 215-723-6051.

FILING SYSTEMS

CSI MasterFormat Designation
- 07 84 43 - Joint FIRESTOPPING
- 07 92 00 - Joint Sealants

SEALANT • WATERPROOFING & RESTORATION INSTITUTE

Issued to: Pecora Corporation
Product: Dynatrol® II Polyurethane Sealant

C719: Pass ✔ Ext:+50% Comp:-50%

Substrate: Primed Mortar, unprimed anodized aluminum and glass substrates
[mortar substrates primed with Pecora P-75 Primer]

Validation Date: 8/29/18 – 8/28/23

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SEALANT VALIDATION
www.swrionline.org

MIAMI-DADE COUNTY APPROVED

NOA # 20-0313.02

Pecora is a member of and supports: SWRI, CSI, AIA, ICRI, ABAA, USGBC, IPI.
Pecora products are proudly made in America.

165 Wambold Road, Harleysville, PA 19438 | 800.523.6688 | pecora.com

PECORA SEALANTS

PECORA CORPORATION®

ARCHITECTURAL URETHANE SEALANTS

Color Packs for Standard and Non-Standard Colors are sold in 5-unit increments.

Custom colors available upon request.

NOTE: This guide offers a representation of color: when matching is critical, a cured or applied color sample is highly recommended.

Sealant Calculator
bit.ly/3clP1QG

STANDARD COLOR GUIDE

DYNATROL™ II & DYNAFLEX & DYNATRED™

DYNATROL™ II: TWO-PART, GENERAL PURPOSE POLYURETHANE SEALANT
DYNAFLEX: TWO-PART, FLEXIBLE POLYURETHANE SECURITY SEALANT
DYNATRED™: TWO-PART, NON-SAG, TRAFFIC-GRADE POLYURETHANE SEALANT

BRITE WHITE	CF26
TRU-WHITE	345
OFF-WHITE	516
DOVER SKY	CF14
ANODIZED ALUMINUM	804
BRUSHED PEWTER	CF42
ALUMINUM STONE	515
STONE GRAY	CF53
LONDON FOG	CF44
DARK GRAY	048
LIMESTONE	039
PUTTY GRAY	CF20
PEARL ASH	CF11
VAN DYKE	CF18
NATURAL WHITE	CF33

SANDSTONE	951
DESERT SUN	CF41
EGGSHELL CREAM	CF04
MANOR WHITE	CF08
PRECAST	113
AMARILLO WHITE	CF02
ALMOND	792
BEIGE	595
PRAIRIE CLAY	CF07
SANDALWOOD BEIGE	CF09
BEIGE GRAY	525
TAN	545
BUFF	512
COLONIAL TAN	CF13
MOCHA CREAM	CF34

TOASTED ALMOND	CF54
NATURAL STONE	565
DESERT TAN	530
ADOBE ACCENT	CF10
REDWOOD TAN	CF43
BRICK RED	CF16
TILE RED	CF22
RED ROCK	955
RIVER ROUGE	CF37W
SIERRA TAN	CF47
ROSE	CF05

TEXAS PINK	CF48
SMOKY BROWN	CF45
BRONZE	314
CHARCOAL GRAY	950
CHOCOLATE	CF49
CLASSIC BRONZE	046
GRANITE GRAY	CF30
BLACK	012
PATRIOT BLUE	CF01
EVERGREEN	CF03

PECORA DECK-SEAL

TRAFFIC GRADE POLYURETHANE SEALANT—ONE PART URETHANE

LIMESTONE	039

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 10, 2019

1 Identification

· **Product identifier**

· **Trade name: DynaTrol II Activator**

· **Other means of identification:** DynaTrol II Activator

· **Recommended use and restriction on use**
· **Recommended use:** Activator
· **Restrictions on use:** No relevant information available.

· **Details of the supplier of the Safety Data Sheet**
· **Manufacturer/Supplier:**
Pecora Corporation
165 Wambold Road
Harleysville, PA 19438
215-723-6051

· **Emergency telephone number:**
CHEMTREC
1-800-424-9300 (US/Canada)

2 Hazard(s) identification

· **Classification of the substance or mixture**

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens. 1 H317 May cause an allergic skin reaction.

· **Label elements**
· **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms:**

GHS08

· **Signal word:** Danger
· **Hazard statements:**
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
· **Precautionary statements:**
P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves.
P285 In case of inadequate ventilation wear respiratory protection.
P302+P352 If on skin: Wash with plenty of soap and water.
P304+P341 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P342+P311 If experiencing respiratory symptoms: Call a poison center/doctor.
P363 Wash contaminated clothing before reuse.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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· **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

4098-71-9	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate Acute Tox. 3, H331 Resp. Sens. 1, H334 Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	<5%

· **Additional information:**
For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.
For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

· **Description of first aid measures**
· **After inhalation:**
Supply fresh air.
Provide oxygen treatment if affected person has difficulty breathing.
If experiencing respiratory symptoms: Call a poison center/doctor.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation or rash occurs: Get medical advice/attention.
· **After eye contact:**
Protect unharmed eye.
Immediately remove contact lenses if possible.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
· **Most important symptoms and effects, both acute and delayed:**
Asthma attacks
Breathing difficulty
Coughing
Allergic reactions
Slight irritant effect on eyes.
Gastric or intestinal disorders when ingested.
Slight irritant effect on skin and mucous membranes.
Nausea in case of ingestion.
· **Danger:**
May be harmful if inhaled.
Danger of impaired breathing.
· **Indication of any immediate medical attention and special treatment needed:**
Severe allergic skin reaction, bronchial spasms and anaphylactic shock are possible.
Medical supervision for at least 48 hours.
If necessary oxygen respiration treatment.

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Later observation for pneumonia and pulmonary edema.
Contains 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate. May produce an allergic reaction.
Treat skin and mucous membrane with antihistamine and corticoid preparations.
In cases of irritation to the lungs, initial treatment with cortical steroid inhalants.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
· **For safety reasons unsuitable extinguishing agents:** No relevant information available.
· **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
· **Advice for firefighters**
· **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Isolate area and prevent access.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.
· **Environmental precautions** Avoid release to the environment.
· **Methods and material for containment and cleaning up**
Towel or mop up material and collect in a suitable container.
For larger spills, add sawdust, chalk or other inert binding material, then sweep up and discard.
Send for recovery or disposal in suitable receptacles.
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **Handling**
· **Precautions for safe handling:**
Use only in well ventilated areas. Avoid contact with the eyes and skin. Avoid breathing mist, vapors, or spray. Open and handle receptacle with care.

· **Conditions for safe storage, including any incompatibilities**
· **Requirements to be met by storerooms and receptacles:**
Avoid storage near extreme heat, ignition sources or open flame.
Store in cool, dry conditions in well sealed receptacles.
Do not allow product to freeze.

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· **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from oxidizers, strong acids, strong bases.
Protect from humidity and water.
· **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**	
4098-71-9 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	
REL (USA)	Short-term value: 0.18 mg/m³, 0.02 ppm Long-term value: 0.045 mg/m³, 0.005 ppm Skin
TLV (USA)	Long-term value: 0.045 mg/m³, 0.005 ppm
EL (Canada)	Long-term value: 0.005 ppm Ceiling limit value: 0.01 ppm S(R)
EV (Canada)	Long-term value: 0.005 ppm Ceiling limit value: 0.02 ppm
LMPE (Mexico)	Long-term value: 0.005 ppm

· **Exposure controls**
· **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Do not breathe dust/fume/gas/mist/vapors/spray.
· **Engineering controls:** Provide adequate ventilation.
· **Breathing equipment:**
Use suitable respiratory protective device in case of insufficient ventilation.
NIOSH or EN approved organic vapor respirator equipped with a dust/mist prefilter should be used.
· **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
· **Eye protection:**

Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.
· **Body protection:** Protective work clothing
· **Limitation and supervision of exposure into the environment**
No relevant information available.

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· **Risk management measures** No relevant information available.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **Appearance:**	
Form:	Viscous liquid.
Color:	According to product specification
· **Odor:**	Not determined.
· **Odor threshold:**	Not determined.
· **pH-value:**	Not applicable.
· **Melting point/Melting range:**	Not determined.
· **Boiling point/Boiling range:**	Not determined.
· **Flash point:**	>93.3 °C (>199.9 °F)
· **Flammability (solid, gaseous):**	Not determined.
· **Auto-ignition temperature:**	Not determined.
· **Decomposition temperature:**	Not determined.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits**	
Lower:	Not determined.
Upper:	Not determined.
· **Oxidizing properties:**	Non-oxidizing.
· **Vapor pressure:**	Not determined.
· **Density:**	
Relative density:	1.036
Vapor density:	Not applicable.
Evaporation rate:	Not determined.
· **Solubility in / Miscibility with**	
Water:	Slowly reacts with water. Not miscible or difficult to mix.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity**	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· **VOC content:**	0 g/l
· **Other information**	No relevant information available.

10 Stability and reactivity

· **Reactivity:** No relevant information available.
· **Chemical stability:** Stable under normal temperatures and pressures.

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· **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
Avoid extreme heat.
· **Possibility of hazardous reactions**
Toxic fumes may be released if heated above the decomposition point.
Contact with acids releases toxic gases.
Reacts with strong alkali.
Reacts with oxidizing agents.
Reacts with peroxides and other radical forming substances.
Reacts with water.
· **Conditions to avoid**
Excessive heat.
Moisture.
· **Incompatible materials** Oxidizers, strong bases, strong acids
· **Hazardous decomposition products**
Hydrogen cyanide (prussic acid)
Isocyanate
Carbon monoxide and carbon dioxide

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:** May be harmful if inhaled.
· **LD/LC50 values that are relevant for classification:** None.
· **Primary irritant effect:**
· **On the skin:** Based on available data, the classification criteria are not met.
· **On the eye:** Based on available data, the classification criteria are not met.
· **Sensitization:** May cause sensitization by inhalation and skin contact.

· **IARC (International Agency for Research on Cancer):**
None of the ingredients are listed.
· **NTP (National Toxicology Program):**
None of the ingredients are listed.
· **OSHA-Ca (Occupational Safety & Health Administration):**
None of the ingredients are listed.

· **Probable route(s) of exposure:**
Ingestion.
Inhalation.
Eye contact.
Skin contact.
· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
· **Carcinogenicity:** Based on available data, the classification criteria are not met.
· **Reproductive toxicity:** Based on available data, the classification criteria are not met.
· **STOT-single exposure:** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
· **Aspiration hazard:** Based on available data, the classification criteria are not met.

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12 Ecological information

· **Toxicity**
· **Aquatic toxicity** No relevant information available.
· **Persistence and degradability** No relevant information available.
· **Bioaccumulative potential:** No relevant information available.
· **Mobility in soil:** No relevant information available.
· **Other adverse effects** No relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:**
Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

· **Uncleaned packagings**
· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **UN-Number** · **DOT, ADR/RID/ADN, IMDG, IATA**	Not regulated.
· **UN proper shipping name** · **DOT, ADR/RID/ADN, IMDG, IATA**	Not regulated.
· **Transport hazard class(es)** · **DOT, ADR/RID/ADN, IMDG, IATA** · **Class**	Not regulated.
· **Packing group** · **DOT, ADR/RID/ADN, IMDG, IATA**	Not regulated.
· **Environmental hazards** · **Marine pollutant:**	No
· **Special precautions for user**	Not applicable.
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

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· **United States (USA)**
· **SARA**

· **Section 302 (extremely hazardous substances):**	
None of the ingredients are listed.	
· **Section 355 (extremely hazardous substances):**	
4098-71-9	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate
· **Section 313 (Specific toxic chemical listings):**	
4098-71-9	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate
· **TSCA (Toxic Substances Control Act)**	
All ingredients are listed or exempt.	

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**
None of the ingredients are listed.
· **Chemicals known to cause developmental toxicity for females:**
None of the ingredients are listed.
· **Chemicals known to cause developmental toxicity for males:**
None of the ingredients are listed.
· **Chemicals known to cause developmental toxicity:**
None of the ingredients are listed.
· **EPA (Environmental Protection Agency):**
None of the ingredients are listed.
· **IARC (International Agency for Research on Cancer):**
None of the ingredients are listed.
· **Canadian Domestic Substances List (DSL):**
All ingredients are listed or exempt.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
OSHA: Occupational Safety & Health Administration
Acute Tox. 3: Acute toxicity – Category 3
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

(Cont'd. on page 9)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 10, 2019

Trade name: DynaTrol II Activator

(Cont'd. of page 8)

· **Sources**

Website, European Chemicals Agency (echa.europa.eu)
Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)
Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.
Safety Data Sheets, Individual Manufacturers

SDS Prepared by:
ChemTel Inc.
1305 North Florida Avenue
Tampa, Florida USA 33602-2902
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
Website: www.chemtelinc.com

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: November 06, 2019

1 Identification

· **Product identifier**

· **Trade name: DynaTrol II - Base**

· **Other means of identification:** DynaTrol II Part B

· **Recommended use and restriction on use**
· **Recommended use:** Coating
· **Restrictions on use:** No relevant information available.

· **Details of the supplier of the Safety Data Sheet**
· **Manufacturer/Supplier:**
Pecora Corporation
165 Wambold Road
Harleysville, PA 19438
215-723-6051

· **Emergency telephone number:**
CHEMTREC
1-800-424-9300 (US/Canada)

2 Hazard(s) identification

· **Classification of the substance or mixture**

Skin Irrit. 2	H315	Causes skin irritation.
Eye Dam. 1	H318	Causes serious eye damage.
Skin Sens. 1	H317	May cause an allergic skin reaction.

· **Label elements**
· **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms:**

GHS05 GHS07

· **Signal word:** Danger
· **Hazard statements:**
H315 Causes skin irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
· **Precautionary statements:**

P261	Avoid breathing dust/fume/gas/mist/vapors/spray
P264	Wash thoroughly after handling.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves and eye protection.
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.
P310	Immediately call a poison center/doctor.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

(Cont'd. on page 2)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: November 06, 2019

Trade name: DynaTrol II - Base

(Cont'd. of page 1)

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

471-34-1	Calcium carbonate	<10%
1305-78-8	Calcium oxide Eye Dam. 1, H318 Skin Irrit. 2, H315; STOT SE 3, H335	<5%
7631-86-9	Silicon dioxide	<5%
1313-59-3	Sodium oxide Skin Corr. 1A, H314; Eye Dam. 1, H318	<5%
1344-28-1	Aluminum oxide	<5%
12136-45-7	Dipotassium oxide Met. Corr.1, H290; Skin Corr. 1A, H314; Eye Dam. 1, H318	<5%
41556-26-7	bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate Skin Sens. 1, H317	<1%
111-46-6	diethylene glycol STOT RE 2, H373 Acute Tox. 4, H302	<1%
13463-67-7	Titanium dioxide	<1%
25973-55-1	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol PBT; vPvB STOT RE 2, H373 Combustible Dust	<1%
82919-37-7	Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate Skin Sens. 1, H317	<1%

· **Additional information:**
Non-classification as a carcinogen is based on non-inhalable form of product. IARC listings for titanium dioxide note that the substance must be respirable.
For the wording of the listed Hazard Statements, refer to section 16.
For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.

4 First-aid measures

· **Description of first aid measures**
· **After inhalation:**
Respiration of particulates is unlikely during normal usage.
Supply fresh air; consult doctor in case of complaints.
· **After skin contact:**
Wash with soap and water.
If skin irritation or rash occurs: Get medical advice/attention.

(Cont'd. on page 3)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: November 06, 2019

Trade name: DynaTrol II - Base

(Cont'd. of page 2)

· **After eye contact:**
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· **After swallowing:** Do not induce vomiting; immediately call for medical help.
· **Most important symptoms and effects, both acute and delayed:**
Gastric or intestinal disorders when ingested.
Allergic reactions
Irritant to skin and mucous membranes.
· **Danger:** Causes serious eye damage.
· **Indication of any immediate medical attention and special treatment needed:**
Contains bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate, Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate. May produce an allergic reaction.
Treat skin and mucous membrane with antihistamine and corticoid preparations.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:**
Carbon dioxide
Fire-extinguishing powder
Gaseous extinguishing agents
Foam
Sand
Water fog / haze
· **For safety reasons unsuitable extinguishing agents:** Water stream.
· **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
· **Advice for firefighters**
· **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation.
Use personal protective equipment as required.
· **Environmental precautions** Avoid release to the environment.
· **Methods and material for containment and cleaning up**
Towel or mop up material and collect in a suitable container.
For larger spills, add sawdust, chalk or other inert binding material, then sweep up and discard.
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

(Cont'd. on page 4)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: November 06, 2019

Trade name: DynaTrol II - Base

(Cont'd. of page 3)

· **Handling**
· **Precautions for safe handling:**
Open and handle receptacle with care.
Keep out of reach of children.
Avoid contact with the eyes and skin.

· **Conditions for safe storage, including any incompatibilities**
· **Requirements to be met by storerooms and receptacles:**
Store in cool, dry conditions in well sealed receptacles.
· **Information about storage in one common storage facility:** Store away from foodstuffs.
· **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

471-34-1 Calcium carbonate

PEL (USA)	Long-term value: 15* 5** mg/m³ *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m³ *total dust **respirable fraction
TLV (USA)	TLV withdrawn

1305-78-8 Calcium oxide

PEL (USA)	Long-term value: 5 mg/m³
REL (USA)	Long-term value: 2 mg/m³
TLV (USA)	Long-term value: 2 mg/m³
EL (Canada)	Long-term value: 2 mg/m³
EV (Canada)	Long-term value: 2 mg/m³
LMPE (Mexico)	Long-term value: 2 mg/m³

7631-86-9 Silicon dioxide

NIOSH REL (USA)	Long-term value: 6 mg/m³
OSHA PEL (USA)	Long-term value: 80 mg/m³

1344-28-1 Aluminum oxide

PEL (USA)	Long-term value: 15*; 5** mg/m³ *Total dust; ** Respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m³ as Al*Total dust**Respirable/pyro powd./welding f.
TLV (USA)	Long-term value: 1* mg/m³ as Al; *as respirable fraction
EL (Canada)	Long-term value: 1.0 mg/m³ respirable, as Al
EV (Canada)	Long-term value: 10 mg/m³ total dust
LMPE (Mexico)	Long-term value: 1* mg/m³

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Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: November 06, 2019

Trade name: DynaTrol II - Base

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	A4, *fracciòn respirable
111-46-6 diethylene glycol	
WEEL (USA)	Long-term value: 10 mg/m³
13463-67-7 Titanium dioxide	
PEL (USA)	Long-term value: 15* mg/m³ *total dust
REL (USA)	See Pocket Guide App. A
TLV (USA)	Long-term value: 10 mg/m³
EL (Canada)	Long-term value: 10* 3** mg/m³ *total dust;**respirable fraction; IARC 2B
EV (Canada)	Long-term value: 10 mg/m³ total dust
LMPE (Mexico)	Long-term value: 10 mg/m³ A4

· **Exposure controls**
· **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Avoid contact with the eyes and skin.
Avoid breathing mist, vapors, or spray.
· **Engineering controls:** No relevant information available.
· **Breathing equipment:**
Not required under normal conditions of use.
Use suitable respiratory protective device in case of insufficient ventilation.
A NIOSH approved dust respirator should be used for operations generating dust.
· **Protection of hands:**

Protective gloves

Wear protective gloves to handle contents of damaged or leaking units.
Gloves are advised for repeated or prolonged contact.
· **Eye protection:**

Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.
· **Body protection:** Protective work clothing
· **Limitation and supervision of exposure into the environment** No special requirements.
· **Risk management measures** No special requirements.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**
· **Appearance:**

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Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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Trade name: DynaTrol II - Base

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Form:	Paste
Color:	According to product specification
· **Odor:**	Not determined.
· **Odor threshold:**	Not determined.
· **pH-value:**	Not determined.
· **Melting point/Melting range:**	Not determined.
· **Boiling point/Boiling range:**	Not determined.
· **Flash point:**	>93.3 °C (>199.9 °F)
· **Flammability (solid, gaseous):**	Not applicable.
· **Auto-ignition temperature:**	Not determined.
· **Decomposition temperature:**	Not determined.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits**	
Lower:	Not determined.
Upper:	Not determined.
· **Oxidizing properties:**	Non-oxidizing.
· **Vapor pressure:**	Not determined.
· **Density:**	
Relative density:	0.87
Vapor density:	Not determined.
Evaporation rate:	Not determined.
· **Solubility in / Miscibility with**	
Water:	Insoluble.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity**	
Dynamic:	Not determined.
Kinematic:	Not determined.
· **VOC content:**	<1 g/L
· **Other information**	No relevant information available.

10 Stability and reactivity

· **Reactivity:** No relevant information available.
· **Chemical stability:** Stable under normal temperatures and pressures.
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
· **Possibility of hazardous reactions** Reacts with oxidizing agents.
· **Conditions to avoid** Excessive heat.
· **Incompatible materials** Oxidizers
· **Hazardous decomposition products**
Under fire conditions only:

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Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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Trade name: DynaTrol II - Base

(Cont'd. of page 6)

Carbon monoxide and carbon dioxide

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:** Based on available data, the classification criteria are not met.
· **LD/LC50 values that are relevant for classification:** None.
· **Primary irritant effect:**
· **On the skin:** Based on available data, the classification criteria are not met.
· **On the eye:** Causes eye irritation.
· **Sensitization:**
Contains bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate, Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate. May produce an allergic reaction.
· **IARC (International Agency for Research on Cancer):**
Reference to titanium dioxide is based on unbound respirable particles and is not applicable to the product as supplied.

13463-67-7	Titanium dioxide	2B

· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

· **Probable route(s) of exposure:**
Ingestion.
Eye contact.
Skin contact.
· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
· **Carcinogenicity:** Based on available data, the classification criteria are not met.
· **Reproductive toxicity:** Based on available data, the classification criteria are not met.
· **STOT-single exposure:** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
· **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

· **Toxicity**
· **Aquatic toxicity**
Harmful to aquatic life with long lasting effects.

41556-26-7 bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	
LC50	0.97 mg/l (lepomis macrochirus)

· **Persistence and degradability** No relevant information available.
· **Bioaccumulative potential:** No relevant information available.
· **Mobility in soil:** No relevant information available.
· **Other adverse effects** No relevant information available.

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Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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Trade name: DynaTrol II - Base

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13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:**
Smaller quantities can be disposed of with household waste.
Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

· **Uncleaned packagings**
· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **UN-Number**	
· **DOT, ADR/RID/ADN, IMDG, IATA**	Not regulated.
· **UN proper shipping name**	
· **DOT, ADR/RID/ADN, IMDG, IATA**	Not regulated.
· **Transport hazard class(es)**	
· **DOT, ADR/RID/ADN, IMDG, IATA**	
· **Class**	Not regulated.
· **Packing group**	
· **DOT, ADR/RID/ADN, IMDG, IATA**	Not regulated.
· **Environmental hazards**	
· **Marine pollutant:**	No
· **Special precautions for user**	Not applicable.
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **United States (USA)**
· **SARA**

· **Section 302 (extremely hazardous substances):**
None of the ingredients are listed.
· **Section 355 (extremely hazardous substances):**
None of the ingredients are listed.

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Safety Data Sheet

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Trade name: DynaTrol II - Base

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· **Section 313 (Specific toxic chemical listings):**	
1344-28-1	Aluminum oxide
· **TSCA (Toxic Substances Control Act)**	
All ingredients are listed or exempt.	

· **Proposition 65 (California)**
· **Chemicals known to cause cancer:**
Reference to titanium dioxide is based on unbound respirable particles and is not applicable to the product as supplied.

13463-67-7	Titanium dioxide
· **Chemicals known to cause developmental toxicity for females:**	
None of the ingredients are listed.	
· **Chemicals known to cause developmental toxicity for males:**	
None of the ingredients are listed.	
· **Chemicals known to cause developmental toxicity:**	
None of the ingredients are listed.	
· **EPA (Environmental Protection Agency):**	
None of the ingredients are listed.	

· **IARC (International Agency for Research on Cancer):**
Reference to titanium dioxide is based on unbound respirable particles and is not applicable to the product as supplied.

13463-67-7	Titanium dioxide	2B
· **Canadian Domestic Substances List (DSL):**		
All ingredients are listed or exempt.		

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
OSHA: Occupational Safety & Health Administration
Met. Corr.1: Corrosive to metals – Category 1
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

· **Sources**
Website, European Chemicals Agency (echa.europa.eu)
Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/

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Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: November 06, 2019

Trade name: DynaTrol II - Base

(Cont'd. of page 9)

overview/home.do)
Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.
Safety Data Sheets, Individual Manufacturers

SDS Prepared by:
ChemTel Inc.
1305 North Florida Avenue
Tampa, Florida USA 33602-2902
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
Website: www.chemtelinc.com

PECORA CORPORATION

TEST REPORT

January, 2007

SUBJECT: Conformance of **PECORA DYNATROL II** to ASTM D-1850-74

SUMMARY: **PECORA DYNATROL II** was tested in accordance with ASTM D-1850-74 and was found to meet or exceed the requirements of the specification.

TEST	REQUIREMENTS	RESULTS
3.1 Penetration	235 maximum	Passes
3.2 Flow	Cured material shall not flow in excess of 5mm.	Passes
3.3 Bond	Shall not fail in adhesion or cohesion to mortar after 5 cycles.	Passes

CONCLUSIONS: **PECORA DYNATROL II** complies with ASTM C-1850-74.

Pecora R & D, QC, and Technical Service laboratories under guidelines set forth under ASTM C-1021, Standard Practice for Laboratories Engaged in Testing of Building Sealants, and meet all listed qualification to perform the testing reported above.

165 Wambold Road, Harleysville, PA 19438 • 1-800-523-6688 • 215-723-6051 • FAX 215-721-0286

PECORA CORPORATION

Product Certification Letter

To Whom It May Concern:

This will certify that Pecora Dynatrol II two-part, non-sag, polyurethane Dynamic Sealant complies with the requirements of Federal Specification TT-S-00227E, Amendment 3, Type II, non-sag, Class A, when properly primed.

Pecora Dynatrol II conforms to ASTM Specification C-920, Type M, Grade NS, Class 50, Use NT, T_1, M, A, G and O as well as conforms to ASTM Specification D-1850.

Pecora Dynatrol II conforms to ASTM C1382 - 05 Test Method for Determining Tensile Adhesion Properties of Sealants When Used in Exterior Insulation and Finish Systems (EIFS) Joints.

Pecora Dynatrol II conforms to Floor and Wall joint systems as outlined in UL Designs FF-S-0006, Configuration # 1 and Configuration # 2, FF-S-1007, FF-D-1033, FF-D-1034, WW-S-0010, Configuration # 2, WW-S-0010, Configuration # 2, WW-S-0038, WW-S-1008, WW-D-1034, WW-D-1035, FW-D-1030, FW-D-1031, HW-D-1030, and HW-D-1031.

Pecora Dynatrol II is USDA approved and acceptable for use in processing or storage facilities for meat or poultry food products.

Pecora Dynatrol II contains <10 g/l activator <25 g/l base volatile organic content (VOC). This product is manufactured in Harleysville, Pennsylvania.

Pecora sealants and waterproofing products are manufactured in the United States and meet the requirements for use as "Domestic End Products," as stated in the Buy American Act Title 41 USC 10.

The test for an item of domestic construction material has two parts:

1. It must be manufactured in the United States, and
2. The cost of the products domestic components must exceed 50 percent of the cost of all components.

Pecora Dynatrol II Urethane does not contain asbestos, PCB, or lead as part of its formulation.

Pecora Dynatrol II is validated through SWRI.

Sincerely yours,

Roy D. Cannon, Jr.
Technical Service Director
PECORA CORPORATION

165 Wambold Road, Harleysville, PA 19438 • 1-800-523-6688 • 215-723-6051 • FAX 215-721-0286

PECORA CORPORATION

Technical Bulletin # 104

Use of Pecora Dynatrol II Two-Component Polyurethane Joint Sealant in Horizontal Traffic Applications

Pecora Dynatrol II, two component, low modulus, urethane sealant is a non-sag caulking material designed for sealing expansion joints when excessive movement is expected. The cyclic movement rating on this sealant is +/- 50% in expansion and compression when tested according to ASTM C-719. The non-sag consistency and high movement capability of this sealant make it desirable for horizontal applications in pedestrian or vehicular traffic areas such as parking garages, where a self leveling sealant can sometimes be problematic due to excessive flow on sloping concrete slabs.

Sealant joints in traffic areas can be subject to severe abuse from contact with automobile tires, environmental debris such as rocks, glass, foot traffic, and standing water. When using lower modulus sealants in traffic applications, the practice of some simple but important guidelines is necessary for a successful project.

Guidelines

A) Joint Dimensions

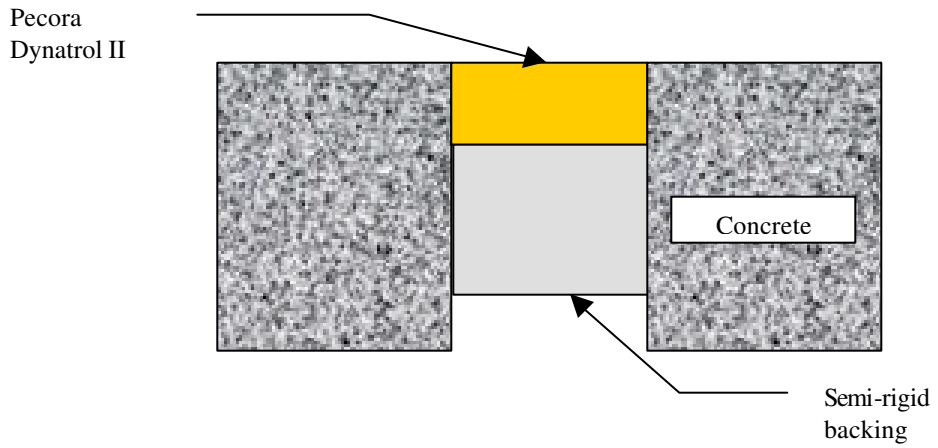
1) Always use proper sealant dimensions with respect to width to depth ratios. The general guideline is 1:1 width to depth in joints up to 5/8 inch wide. And 2:1 thereafter, with a maximum joint depth of ½ inch in joints up to 1 ½ inches wide. In special cases where joints exceed 1 ½ inches in width a 2:1 ratio may be maintained.
2) Added sealant thickness in wide joints while maintaining a 2:1 width to depth ratio will aid in puncture resistance while maintaining movement capability and long term performance.

B) Pedestrian Traffic Applications

1) Sealant joints wider than 5/8" using Dynatrol II for horizontal application with heavy pedestrian access must be capable of resisting puncture. A pedestrian joint design, which has been somewhat successful, consists of semi-solid joint filler, such as fiberboard or rigid polystyrene foam, with bond breaker applied to its surface in contact with the sealant. Periodic inspection and maintenance should be a realistic consideration to ensure a consistent waterproof expansion joint. ***No special backing consideration is necessary when using Dynatrol II in horizontal joints 5/8" or less in width.*** Minimum joint width for Dynatrol II in horizontal traffic applications is ¼".

C) Vehicular Traffic Applications

1) Dynatrol II may be used in vehicular traffic joints using the same joint dimension guidelines discussed in section "A" above. In areas not to receive pedestrian traffic a semi-rigid backing is not needed, nor is it necessary to recess the sealant within the joint as would be necessary with less abrasion resistant silicone based sealants.



Note:
Use Pecora P-75 or P-150 primer on concrete surfaces.

165 Wambold Road, Harleysville, PA 19438 • 1-800-523-6688 • 215-723-6051 • FAX 215-721-0286

SEALANT • WATERPROOFING & RESTORATION INSTITUTE

Issued to: **Pecora Corporation**
Product: **Dynatrol® II Polyurethane Sealant**

C719: Pass ✔ Ext:+50% Comp:-50%

Substrate: Primed Mortar, unprimed anodized aluminum and glass substrates
[mortar substrates primed with Pecora P-75 Primer]

Validation Date: 8/29/18 – 8/28/23

No. 818-DII823

SEALANT VALIDATION

www.swrionline.org

PECORA CORPORATION
Architectural Weatherproofing Products
U.S.A. • since 1862

Technical Service Communication

TEST REPORT

March 1, 2019

SUBJECT: Conformance of **PECORA DYNATROL II POLYURETHANE SEALANT** to ASTM C920

SUMMARY: **PECORA DYNATROL II POLYURETHANE SEALANT** was tested in accordance with ASTM C920 and was found to meet or exceed all the necessary requirements for Type M, Grade NS, Class 50, Use T_1.

C920	REQUIREMENTS	RESULTS
Stability	6 months at 80°F	Pass
Color	Agreed upon by purchaser	>50 standard colors
Rheological Properties ASTM C639	No flow more than 3/16" @ 40°F and 122°F	40°F, None 122°F, None
Extrusion Rate ASTM C603	Not more than 45 seconds	4 seconds
Application Life ASTM C603	3 hours minimum	Passes
Hardness ASTM C661	Shore A of 15-50	25 - 35
Effects of Heat Aging ASTM C792	Shall not lose more than 10% weight weight, nor show cracks or chalking 158°F	Less than 1.4% weight loss. No cracking or chalking
Tack-free Time ASTM C679	Not more than 72 hours	72 hours at 75°F. (24°C)
Stain & Color Change ASTM C510	No stain or color change on white cement mortar	Non-staining No color change.
Cyclic Movement ASTM C719	Less than 1 ½ square inches of bond failure on 3 samples	No bond loss total among 3 specimens on mortar*, glass & aluminum (*use w/ P-75 primer)

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Adhesion-in-peel ASTM C794	No less than 5 PLI and no more than 25% adhesion loss.	28 lb. (12.7 kg) peel strength and 0% adhesion loss on mortar*, glass or aluminum.
Effects of Accelerated Weathering ASTM C793	No cracking after QUV exposure and bent over ½ inch mandrel at -15°F - + 3.6°F	No cracking

CONCLUSIONS: **PECORA DYNATROL II POLYURETHANE SEALANT** complies with ASTM C920 Type M, Grade NS, Class 50, Use T_1.

Pecora R & D, QC, and Technical Service laboratories operate under guidelines set forth under ASTM C1021, Standard Practice for Laboratories Engaged in Testing of Building Sealants, and meet all listed qualification to perform the testing reported above.

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TEST REPORT

January, 2019

SUBJECT: Conformance of PECORA **DYNATROL II** to Federal Specification TT-S-00227E,

SUMMARY: **PECORA DYNATROL II** Two-Part Non-Sag Modified Polyurethane Sealant was tested in accordance with Federal Specification TT-S-00227E (COM-NBS)-3, October 9, 1970, Type II. The **DYNATROL II** passed or exceeded all the requirements of the specification.

TT-S-00227E	**REQUIREMENTS**	**RESULTS**
3.5.2 Non-Sag	Maximum 3/16" sag	1/16"
3.5.3 Application Life	Minimum 3 hours	3 ½" hours
3.5.4.1 Hardness at standard conditions	Shore A = 15-50	23
3.5.4.2 Hardness after heat aging	Shore A = 50 maximum	28
3.5.5 Weight loss after heat aging	10% maximum, no cracking no chalking	3.0%, no cracking or chalking
3.5.6 Tack-free time	72 hours maximum	Passes
3.5.7 Stain & Color change	No visible stain or color change	No staining or color change.
3.5.8 Durability (Class A)	Maximum loss = 1 ½ sq. inches among 3 specimens of each substrate	Less than ¼ sq. inches total among 3 specimens on aluminum, glass or concrete*
3.5.9 Adhesion-in-peel (@ 7days water immersion)	25 lbs. peel strength 25% adhesion loss 25% adhesion loss	Average peel 25 lbs., 0% adhesion loss on aluminum, glass or concrete*

- P-75 Primer used on concrete (where 7 days total water immersion required).

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CONCLUSIONS: The above results are certification that **PECORA DYNATROL II** conformed to and exceeded the requirements of Federal Specification TT-S-00227E (COM-NBS)-3, October 9, 1970, Class A, Type II.

Pecora R & D, QC, and Technical Service laboratories under guidelines set forth under ASTM C-1021, Standard Practice for Laboratories Engaged in Testing of Building Sealants, and meet all listed qualifications to perform the testing reported above.

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Green Building Certification Data

March 30, 2019

RE: Pecora *DynaTrol II Multi-component, General Purpose Polyurethane Sealant*

This will certify the following information for Pecora *DynaTrol II*:

LEED® v4 and (LEED 2009):

BPDO-Sourcing of Raw Materials, Option 2 (MR Credit 4.1 and 4.2, Recycled Content): For the purposes of the LEED Rating System Pecora *DynaTrol II* contains 0% recycled content.

BPDO-Sourcing of Raw Materials, Options 1 and 2 (MR Credit 5.1 and 5.2, Regional Materials): Pecora *DynaTrol II* is manufactured in Harleysville, PA 19438. Due to the complexity of its raw material supply chain, the point source of Pecora *DynaTrol II*'s material ingredients cannot be determined.

Low-Emitting Materials, Option 2 (IEQ Credit 4.1, Low-Emitting Materials–Adhesives & Sealants):

VOC Content: Pecora *DynaTrol II*'s base and activator contain <25 g/L and <10 g/L, respectively, of volatile organic compound (VOC) content, well below the 250 g/L VOC limit set by South Coast Air Quality Management District (SCAQMD) Rule 1168 (effective 7/1/2005) for architectural sealants.
VOC Emissions (LEED v4 and LEED 2009 for Schools): Pecora *DynaTrol II* complies with the private office and classroom exposure scenarios of CDPH Standard Method v1.1-2010 (California Specification 01350). When tested, the range of total VOCs after 14 days (336 hours) was 0.5mg/m^3 or less. Note that LEED 2009 references version 1.0 (2004 edition) of the requisite standard.

LEED® 2009 for Schools IEQ Credit 4.1, Low-Emitting Materials–Adhesives & Sealants:

Alternative Compliance Path: Conformance with LEED® 2009 for New Construction IEQ Credit 4.1 (above) may be substituted for meeting LEED® 2009 for Schools IEQ Credit 4.1 VOC emissions testing requirements; therefore Pecora *DynaTrol II* will help project teams satisfy this credit.

Green Globes for New Construction

Criterion 3.7.2.1 Volatile Organic Compounds:

VOC Content: Pecora *DynaTrol II*'s base and activator contain <25 g/L and <10 g/L, respectively, volatile organic compound (VOC) content, as compared to the 250 g/L VOC limit set by South Coast Air Quality Management District (SCAQMD) Rule 1168 for architectural sealants noted in Table 3.7.2.1.1.
VOC Emissions Criteria: Pecora *DynaTrol II* complies with the CDPH Standard Method v1.1-2010 Standard Private Office Scenario.

Living Building Challenge℠ 3.0

Imperative 08 Healthy Interior Environment: Pecora *DynaTrol II* complies with the Private Office, School Classroom, and Single-family Residence exposure scenarios of CDPH Standard Method v1.1-2014.

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Imperative 10 Red List: None of the chemicals listed on the "Living Building Challenge 3.1 Chemical Red List" are used in the manufacture of Pecora *DynaTrol II*. Based on Pecora Corporation's current knowledge of its raw materials and manufacturing processes, there is no reason to expect that the listed chemicals would be present in Pecora *DynaTrol II* as supplied, except as a possible trace impurity. The ingredients used in the manufacture of Pecora *DynaTrol II* are listed on its Globally Harmonized Safety Data Sheet (GHS SDS) together with its VOC content.

Should you require additional information, please contact the Technical Services Dept. at 1-800-355-8817 or techservices@pecora.com.

Sincerely,

Steven T. Lawrey AIA, CSI, CCS, CCCA, LEED® AP
Building Science Engineer
Pecora Corporation

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U.S.A. • since 1862

Limited Material Warranty

Warranty # xxxx

Date :
Project Reference:
General Contractor:
Applicator:
Owner:
Product: DynaTrol II
Primer: TBD
Substantial Completion Date: TBD
Length of Warranty: xx Years

I. The Pecora Limited Warranty: Pecora Corporation warrants to the Owner identified above that:

A. this joint sealant has been manufactured without any material defects and in conformity to Pecora's specifications at the time of manufacture, and
B. this joint sealant will perform its intended function as a weatherseal, and
C. subject to the conditions and exclusions listed below, for a period of xxx (x) years from the application of the joint sealant, Pecora Corporation will replace any of this joint sealant found to be defective.
D. This is Pecora Corporation's sole warranty with respect to its joint sealants. Pecora Corporation makes no other warranty of any kind, whatever, expressed or implied. Any implied warranties of merchantability and implied warranty of fitness for a specific purpose which exceed the terms and conditions of this Limited Warranty are hereby disclaimed by Pecora and excluded from the Limited Warranty.
E. Pecora cannot and does not apply or install the joint sealant; therefore, Pecora cannot and does not warrant or accept responsibility for how the Owner (or the Owner's representatives or contractors) applies or installs the joint sealant. Nevertheless, Pecora offers specification data sheets and application guidelines to provide guidance for proper installation and application of the joint sealant.
F. Sole Remedy: If Pecora Corporation determines that a sealant failure has occurred due to a manufacturing defect, Pecora Corporation will supply to the Owner (or to its representative or contractor) the necessary replacement materials to repair any affected areas. Pecora is not, and will not be, responsible for liquidated, incidental or consequential damages.

II. Necessary Conditions for the Limited Warranty to Apply

A. This Limited Material Warranty becomes effective only if:
i. The joint sealant was installed or applied within its stated shelf life.
ii. Payment: Pecora has received full payment for all Pecora material and products used on the referenced project; and
iii. Notice and Inspection: This Limited Material Warranty becomes effective only if within thirty (30) days of the discovery by the Owner or any of its legal counsel, representatives, advisors, consultants, installers, or contractors of any foundation, grounds, or basis for a potential claim under this warranty, the Owner (or a representative of the Owner) notifies Pecora Corporation in writing of the potential claim by contacting Pecora at the street address or email address provided below. After receiving that notification, Pecora Corporation will have thirty (30) days in which to inspect the project site where the joint sealant was installed or applied. As part of its inspection process, Pecora Corporation reserves the right to perform field tests of the Owner's surfaces that have been sealed with the joint sealant.
iv. Authorized Signature: This Warranty is not in effect unless signed below by an authorized Pecora representative.

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Architectural Weatherproofing Products
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Limited Material Warranty

Warranty # xxxx

III. Limitations and Conditions Rendering the Limited Warranty Null and Void:

A. No Unauthorized Remediation Efforts: The Limited Warranty becomes null and void if remedial repairs are performed on the sealant for the referenced project without written authorization from Pecora Corporation.

B. Improper Maintenance: The Limited Warranty becomes null and void if the Owner fails to use reasonable care in maintaining the sealant, which reasonable care includes, but is not limited to those items listed on Pecora's Technical Bulletin 103 Joint Sealant Inspection.

C. This warranty specifically excludes failure of the sealant caused in whole or in part by:

i. Any failure by the Owner, its representatives, agents, employees, servants, or contractors to adhere to specific manufacturer installation instructions and guidelines for related material and systems contributing to overall waterproofing of subject structure.

ii. Natural causes commonly known or understood as "Acts of God" or "Acts of Nature" including (but not limited to) lightning, hail, flood, earthquake, hurricane, tornado, cyclone, tsunami, and fire.

iii. Movement of the structure resulting in stresses on the sealant which exceed Pecora's published specifications for extension/compression of the sealant, whether due to structural settlement, design error, or construction error;

iv. Disintegration of the underlying substrates;

v. Mechanical damage to the sealant caused by individuals, tools, or other outside agents;

IV. Prohibition on Assignment: This Limited Material Warranty may not be transferred or assigned to any person or entity except upon express written permission to do so granted by Pecora.

V. Choice of Laws, Choice of Forum: By accepting this Limited Warranty, Owner and/or anyone entitled to seek enforcement of this Warranty agree that any claim or controversy between or among the parties arising out of or relating to this Warranty shall be governed by the laws of the Commonwealth of Pennsylvania without application of principles of conflicts of law, and that the exclusive forum for adjudicating any dispute arising hereunder or related to this Warranty is and shall be the Court of Common Pleas of Montgomery County, Pennsylvania.

Roy D. Cannon, Jr.
Director, Construction Materials Technology
Pecora Corporation
165 Wambold Road, Harleysville, PA 19438
cannonr@pecora.com

For questions on this or any other warranty you have with Pecora Corporation, please contact the Technical Service Group at (215) 799-7520 or fax (215) 799-2518.

Test Verification of Conformity

Verification Number: 104947308GRR-002d

On the basis of the tests undertaken, the sample of the below product have been found to comply with the requirements of the referenced specification/standard at the time the tests were carried out. This verification is part of the full test report and should be read in conjunction with it.

Applicant Name & Address:	Pecora Corporation 165 Wambold Road, Harleyville, PA 19438 USA
Product Description:	Pecora Dynatrol II - 345 (Tru White)
Ratings & Principle Characteristics:	CDPH: This product conforms to formaldehyde and individual VOC requirements specified in California Department of Public Health CDPH 01350 v1.2 Table 4-1 for the School Classroom and Private Office scenarios as defined in Tables 4-3 and 4-5. TVOC Ranges (mg m-3): Modelling scenario – Joint Sealants; Private Office - 0.11 mg m-3 School Classroom - 0.06 mg m-3 TVOC was measured on day 14
Models/Type References:	Not Specified
Brand Names:	Pecora Corporation
Specification/Standards:	CDPH/EHLB/Standard Method Version 1.2, 2017
Verification Issuing Office Name & Address:	Intertek Testing Services NA, Inc. 4700 Broadmoor Ave SE Suite 200 Kentwood, MI 49512
Date of Tests:	11-February-2022 to 25-February-2022
Test Report Number(s):	104947308GRR-001d

Name: Taylor Gebben
Position: Chemist III
Date: 12-April-2022

ACCREDITED

ISO/IEC 17025

Certificate No. 0078.01