SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION

Product Identifier : ARDEX ARDISEAL[™] RAPID PLUS (Part B)

Product Code Number : 12811011 Chemical Description : Mixture

Trade Name/Synonyms : ARDEX ARDISEAL PLUS (Part B)

Material Use : Semi-rigid joint sealant Uses Advised Against : No information available.

Manufacturer's name and address: Supplier's name and address

Same as manufacturer.

ARDEX Engineered Cements

400 Ardex Park Dr. Aliquippa, PA 15001 USA

Information Telephone No. : (724) 203-5000

Website Address : http://www.ardexamericas.com

24 Hr Emergency Telephone # : CHEM-TEL: 1-800-255-3924 OR 1-813-248-0585 (call collect)

SECTION 2 – HAZARDS IDENTIFICATION

GHS Classification per 29 CFR 1910.1200 (OSHA HCS 2012) and HPR (WHMIS 2015)

Acute Toxicity, Oral, Category 4
Acute Toxicity, Inhalation, Category 4
Skin Corrosion/Irritation, Category 2
Eye Corrosion/Irritation, Category 2B
Carcinogen, Category 2

Carcinogen, Category 2 Skin Sensitization, Category 1 Reproductive Toxicity, Category 2

Specific Target Organ Toxicity, Single Exposure, Category 3 (Respiratory)

GHS Pictograms :





Signal Word : Danger

Hazard Statement : May damage fertility or the unborn child.

Suspected of causing cancer.

May cause an allergic skin reaction.

Causes eye and skin irritation.

May cause respiratory irritation.

Harmful if swallowed or inhaled.

Precautionary Statements : Do not handle until all safety precautions have been read and understood. Avoid

breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection. Wash hands and exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should be washed separately from other clothing/fabrics. Wash contaminated clothing before reuse. Store locked up. Dispose

of contents / container in accordance with federal, state, and local laws. Do not allow product to enter drains.

Hazards Not Otherwise Specified: None.

% Unknown acute toxicity : 25% of this product consists of ingredients with unknown acute toxicity.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredients | CAS# | % (by weight) |
|---|-------------|---------------|
| | | |
| 1,3-Benzenediamine, 4-methyl-2,6-bis(methylthio)- | 102093-68-5 | 5 - 10 |
| Titanium dioxide | 13463-67-7 | 3 - 7 |
| Carbon Black | 1333-86-4 | 0.1 - 1.0 |
| 2-Pyrrolidinone, 1-ethyl | 2687-91-4 | 0.1 - 1.0 |
| Stannane, dimethylbis[(1-oxoneodecyl)oxy]- | 68928-76-7 | 0.1 - 1.0 |

Exact percentages of the ingredients have been withheld by the manufacturer as trade secrets.

SECTION 4 – FIRST AID MEASURES

General : IF exposed or concerned: Get medical advice/attention.

Inhalation : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for

breathing. Immediately call a POISON CENTER or doctor/physician.

Skin contact : IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse

SKIN with soap and water/shower. IF SKIN irritation or rash occurs: get medical

advice/attention.

Eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. Get medical advice/attention.

Ingestion : IF SWALLOWED: Rinse mouth. Give plenty of water. Do NOT induce vomiting. Call a

POISON CENTER or doctor/physician.

Notes for Physician : Treat symptomatically.

Signs and symptoms of short-term (acute) exposure

Inhalation : May cause minor, temporary irritation to respiratory tract. Symptoms may include

coughing and shortness of breath.

Skin : May cause skin irritation. Symptoms may include redness and itching.

Eyes : Causes irritation to eyes. Symptoms may include redness, itching, blurred vision or

pain.

Ingestion : Symptoms such as gastric pain, nausea, vomiting, and diarrhea may occur.

Effects of long-term (chronic) exposure

: Prolonged inhalation may cause adverse lung effects with symptoms including coughing and shortness of breath. Some individuals may experience a sensitization reaction of the skin after an initial exposure. Subsequent exposures may cause a hypersensitive skin reaction (rash, swelling). See Section 11 for information about other chronic effects.

Indication of need for immediate medical attention or special treatment

: Difficulty breathing persists after removing the person to fresh air.

Any exposure to the eye which causes irritation.

Chemical burns to the skin. Blue color of the skin (cyanotic) after exposure.

Ingestion.

SECTION 5 – FIRE FIGHTING MEASURES

Suitable extinguishing media : Water spray, dry chemical, carbon dioxide, foam. Fight larger fires with water spray or

alcohol resistant foam.

Unsuitable extinguishing media : High pressure water jet may spread the fire.

Hazardous combustion products

: Carbon monoxide carbon dioxide, nitrogen oxides, sulfur oxides, and/or low molecular

weight hydrocarbons and amines

Fire hazards/conditions of flammability

: Thermal decomposition can occur at high temperatures (> 100°C), generating hazardous vapors. Closed containers can build up pressure and rupture.

Special fire-fighting procedures/equipment

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. After fires have been extinguished, carefully clean all equipment and surfaces exposed to fumes.

Flammability classification (OSHA 29 CFR 1910.1200, WHMIS 2015)

: Not classified as flammable.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions : See Section 7 for safe handling procedures. Wear chemically resistant personal

protective equipment during cleanup. For spills in enclosed areas with poor/no ventilation, clean-up personnel should wear self-contained breathing apparatuses. Restrict access to area until completion of clean-up. All persons dealing with clean-up must be properly trained and wear the appropriate chemically protective equipment. Refer to Section 8 on this Safety Data Sheet, EXPOSURE CONTROLS / PERSONAL PROTECTION, for

additional information on acceptable personal protective equipment.

Environmental precautions : Do not allow product to enter waterways. Do not allow material to contaminate ground

water system.

Spill response / clean-up : Ventilate area of release. Stop spill or leak at source if safely possible. Turn off all

possible ignition sources. Contain product with inert absorbent material, preventing it from entering sewer lines or waterways. Gather up spilled material and place in suitable container for later disposal (see Section 13). Notify the appropriate authorities as

required.

Prohibited materials : Avoid strong oxidizing agents.

Special spill response procedures : If a spill/release in excess of the EPA reportable quantity is made into the environment,

immediately notify the national response center in the United States (phone: 1-800-424-8002). Outside of the U.S. call the emergency number listed in Section 1.

US CERCLA Reportable quantity (RQ): None reported.

SECTION 7 – HANDLING AND STORAGE

Safe handling procedures : Wear appropriate personal protective equipment during handling. (See Section 8.)

Observe the rules of proper hygiene. Use only with sufficient ventilation. Wash hands carefully after handling. Avoid getting material into eyes, on skin or on clothing. Do NOT breathe vapor. Do NOT swallow. Observe good hygiene standards. Do not eat, drink or smoke in the work area. Wash thoroughly after handling. Wear protective clothing to prevent skin contact. Promptly remove any clothing that becomes contaminated. Clean

contaminated clothing before reuse. Keep container tightly closed.

Storage requirements : Store in a cool, dry, well-ventilated area. Store away from heat and open flame. Avoid

storing in direct sunlight. Store in original container. Keep tightly closed when not in use. Do not reuse empty container without commercial cleaning or reconditioning.

Incompatible materials : See Section 10.

Special packaging materials : Always keep in containers made of the same materials as the supply container.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible exposure levels

| Ingredients | CAS# | ACGII | H TLV | OSHA PEL | | |
|-----------------------------------|-------------|-------|---------|----------|------|--|
| | | TLV | LV STEL | | STEL | |
| 1,3-Benzenediamine, 4-methyl-2,6- | 102093-68-5 | N/Av | N/Av | N/Av | N/Av | |

| bis(methylthio)- | | | | | |
|--|------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | | | | 15 mg/m ³ | |
| Titanium dioxide | 13463-67-7 | 10 mg/m ³ | N/Av | (total dust) | N/Av |
| Carbon Black | 1333-86-4 | 3.5 mg/m ³ | N/Av | 3.5 mg/m ³ | N/Av |
| 2-Pyrrolidinone, 1-ethyl | 2687-91-4 | N/Av | N/Av | N/Av | N/Av |
| Stannane, dimethylbis[(1-oxoneodecyl)oxy]- | 68928-76-7 | 0.1 mg/m ³ | 0.2 mg/m ³ | 0.1 mg/m ³ | 0.2 mg/m ³ |

Ventilation and engineering measures: Use general or local exhaust ventilation to maintain air concentrations below

recommended exposure limits. Ventilation should effectively remove and prevent buildup

of any vapor or mist generated from the handling of this product.

Personal Protection Equipment (PPE)

Respiratory protection : If work process generates excessive quantities of vapor or dust, or exposures in excess

of any PEL, wear an appropriate organic vapor respirator.

Hand protection : Wear impervious gloves. Materials such as nitrile rubber or Viton (fluorocarbon rubber)

are recommended. Refer to glove manufacturer for breakthrough time for the chemicals

in this product. (See Section 3.)

Body protection: Wear chemical resistant protective clothing. Where extensive exposure to product is

possible, use resistant coveralls, apron, and boots to prevent contact.

Eye / face protection : Chemical goggles must be worn when using this product. A face shield is recommended

if splashing is possible.

Other protective equipment : An eyewash station and safety shower should be made available in the immediate

working area.

General hygiene considerations : Avoid contact with eyes, skin and clothing. Do not breathe vapors/dust. Do not eat, drink

or smoke when using this product. Clean all equipment and clothing at end of each work

shift.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

: Gray liquid Physical state : Liquid **Appearance** Odor Amine (Slight) Odor threshold : N/Av рΗ : N/Av Specific gravity : 1.04 **Boiling point** : N/Av Coefficient of water/oil distribution : N/Av Melting/Freezing point N/Av Solubility in water : Insoluble

Vapor pressure (mm Hg @ 20°C / 68°F) : N/Av

Evaporation rate (n-Butyl acetate = 1) : N/Av Viscosity : 3000 – 7000 mPa.s

Vapor density (Air = 1) : N/Av Volatiles (% by weight) : N/Av

Volatile organic compounds (VOCs) : 0 g/L A+B Flammability classification (OSHA 29 CFR 1910.1200)

: Not classified as flammable

 Flash point
 : > 100°C (> 212°F)
 Lower flammable limit (% by vol)
 : N/Av

 Flash point method
 : Setaflash closed cup
 Upper flammable limit (% by vol)
 : N/Av

 Auto-ignition temperature
 : N/Av
 Oxidizing properties
 : None

Flame projection length : Not available Flashback observed : Not available

Explosion data: Sensitivity to mechanical impact / static discharge

: Not expected to be sensitive to mechanical impact or static.

SECTION 10 – REACTIVITY AND STABILITY INFORMATION

Reactivity : Product reacts with isocyanates, forming a polymer. This reaction evolves heat. **Stability** : Stable under the recommended storage and handling conditions prescribed.

Hazardous polymerization : Hazardous polymerization does not occur.

Conditions to avoid : Avoid prolonged exposure to heat. Storage above 35°C (95°F) will shorten shelf life.

Materials to avoid and incompatibility

: Strong acids, peroxides, and other oxidizing agents.

Hazardous decomposition products

: Refer to hazardous combustion products in Section 5.

SECTION 11 – TOXICOLOGICAL INFORMATION

Routes of Exposure : Inhalation: YES Skin Absorption: YES Skin and Eyes: Yes Ingestion: YES

Symptoms of exposure : See Section 4. Calculated Acute Toxicity Estimates for the Product

 Inhalation
 : N/Av

 Oral
 : N/Av

 Dermal
 : N/Av

Toxicological data : See below for individual ingredient acute toxicity data.

| | | LC50 (4 hr) | LD50 | | |
|---|-------------|-----------------|-----------|---------------|--|
| Ingredients | CAS No | Inhalation, rat | Oral, rat | Dermal, | |
| | | mg/L | mg/kg | rabbit, mg/kg | |
| 1,3-Benzenediamine, 4-methyl-2,6-bis(methylthio)- | 102093-68-5 | N/Av | 1515 | > 2000 | |
| Titanium dioxide | 13463-67-7 | > 6.82 | > 24,000 | > 10,000 | |
| Carbon Black | 1333-86-4 | N/Av | > 8000 | N/Av | |
| 2-Pyrrolidinone, 1-ethyl | 2687-91-4 | > 5.1 | 3200 | > 2000 | |
| Stannane, dimethylbis[(1-oxoneodecyl)oxy]- | 68928-76-7 | N/Av | 1470 | N/Av | |

Repeated Dose Effects : Not available.

Carcinogenic status : Titanium dioxide and Carbon Black have both been classified by IARC as Group 2B:

Possibly carcinogenic to humans. The exposure route for both materials is inhalation of airborne particles of respirable size. In this product, the particles are dispersed in a liquid matrix, and will not become airborne. Do not sand off excess material, following initial application. When removing adhesive from existing flooring (i.e. during a renovation), do not mechanically remove under dry conditions (e.g. blasting, chipping, mechanically

pulverizing).

Reproductive effects : Contains 1-Ethyl-2-pyrrolidinone, a suspected human reproductive toxicant.

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

: None known.: None known.

Epidemiology : Not available.

Target Organ Effects : May cause respiratory irritation.

Sensitization to material : Contains 4-Methyl-2,6-bis(methylthio)-1,3-benzenediamine, which is known to cause skin

sensitization reactions.

Synergistic materials : N/Av

Teratogenicity

Mutagenicity

Irritancy/Corrosivity: Causes irritation to eyes and skin.Other important hazards: See hazards listed in Section 2.

SECTION 12 – ECOLOGICAL INFORMATION

Environmental effects : The product should not be allowed to enter drains or water courses, or be deposited

where it can affect ground or surface waters.

 Ecotoxicity
 :
 No data available.

 Biodegradability
 :
 No data available.

 Bioaccumulative potential
 :
 No data available.

 Mobility in soil
 :
 No data available.

 PBT and vPvB assessment
 :
 No data available.

 Other adverse effects
 :
 No data available.

SECTION 13 – DISPOSAL CONSIDERATION

Handling for disposal : Handle waste according to recommendations in Section 7.

Methods of disposal

: Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

Disposal Information

: Waste must be handled in accordance with all local regulations. In case of large spills, follow all facility Emergency Response Procedures. Do not allow this material into sewers/water supplies. Do not reuse containers. Dispose of container and any unused contents in accordance with local regulations.

RCRA

: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14 – TRANSPORTATION INFORMATION

| Regulatory Information | UN Number | Shipping Name | Class | Packing Group | Label |
|---|--------------|--|-------|------------------|-------|
| TDG | None | This product is not regulated according to Canadian TDG regulations. | None | None | None |
| TDG Additional Information | None | | | | |
| 49 CFR/DOT | None | This product is not regulated according to US DOT regulations. | None | None | None |
| 49 CFR/DOT Additional Information | None | | | | |

SECTION 15 – REGULATORY INFORMATION

Canadian Information:

This product has been classified according to the hazard criteria of the Hazardous Products Regulations (HPR). This SDS contains all of the information required by the HPR.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on either the Domestic Substances List (DSL) or the Non- Domestic Substances List (NDSL).

US Federal Information:

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): None reported.

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes:

Immediate (Acute) Health Hazard

Chronic Health Hazard

Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material is not subject to SARA notification requirements, since it does not contain any Toxic Chemical constituents above de minimus concentrations.

U.S. State Right To Know Laws

California Proposition 65: Warning! This product contains chemicals known to the State of California to cause cancer and/or reproductive effects.

Other State Right to Know Laws:

| 1,3-Benzenediamine, 4-methyl-2,6- | 102093-68-5 | No | No | No | No | No | No | No |
|--|-------------|-----|-----|-----|-----|----|-----|-----|
| Titanium dioxide | 13463-67-7 | No | Yes | Yes | Yes | No | Yes | Yes |
| Carbon Black | 1333-86-4 | Yes | Yes | Yes | Yes | No | Yes | Yes |
| 2-Pyrrolidinone, 1-ethyl | 2687-91-4 | No | No | No | No | No | No | No |
| Stannane, dimethylbis[(1-oxoneodecyl)oxy]- | 68928-76-7 | No | No | No | No | No | No | No |

SECTION 16 – OTHER INFORMATION

Legend : ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstract Services

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of

1980

CFR: Code of Federal Regulations DOT: Department of Transportation DSL: Domestic Substances List EPA: Environmental Protection Agency GHS: Globally Harmonized System HPR: Hazardous Products Regulations

IARC: International Agency for Research on Cancer

Inh: Inhalation N/Av: Not Available N/Ap: Not Applicable

NIOSH: National Institute of Occupational Safety and Health

NTP: National Toxicology Program

OSHA: Occupational Safety and Health Administration

PEL: Permissible exposure limit

RCRA: Resource Conservation and Recovery Act SARA: Superfund Amendments and Reauthorization Act

STEL: Short Term Exposure Limit

TDG: Canadian Transportation of Dangerous Goods Act & Regulations

TLV: Threshold Limit Values TSCA: Toxic Substance Control Act TWA: Time Weighted Average

WHMIS: Workplace Hazardous Materials Identification System

HMIS Rating : *- Chronic Hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe

Health: *2 Flammability 1 Physical Hazard 0 PPE:

Recommended PPE: Gloves, safety glasses with side shields, protective clothing

Disclaimer of Liability

The Information presented herein is supplied as a guide to those who handle or use this product and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive. The manner and conditions of use and handling may involve other and additional considerations. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.

No warranty of any kind is given or implied. ARDEX Engineered Cements will not be liable for any damages, losses, injuries or consequential damages which may result from the use or reliance on any information contained herein.

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