



SAFETY DATA SHEET
U.S. Department of Labor
Occupational Safety & Health Administration

RoofdX SL - Part B

SECTION 1 - IDENTIFICATION

MANUFACTURER: Andek Corporation
ADDRESS: 850 Glen Avenue, Moorestown, NJ 08057
TELEPHONE: 1-856-786-6900
In an emergency, contact CHEMTREC 1-800- 424-9300;
Outside the United States call +1-703-527-3887
PRODUCT IDENTIFIER: RoofdX SL - Part B
RECOMMENDED USE: Industrial Maintenance Coating

SECTION 2 – HAZARD IDENTIFICATION

HAZARD CLASSIFICATION:

Skin: Irritant Category 1 / Sensitization Category 1
Eye: Irritation: Damage Category 2B
Inhalation: Acute Toxicity: Category 4
Reproductive Toxicity: Category 2

SIGNAL WORD: Warning

HAZARD STATEMENTS:

- Combustible liquid.
- Flammable liquid and vapor.
- Causes eye irritation.
- Toxic gases/fumes may be given off during burning or thermal decomposition.
- Closed container may forcibly rupture under extreme heat or when contents have been contaminated with water.
- Use cold water spray to cool fire-exposed containers to minimize the risk of rupture.
- Causes skin irritation.

PICTOGRAMS:



PRECAUTIONARY STATEMENTS:

Prevention:

- **Do Not** handle until all safety precautions have been read and understood.
- **Do Not** allow contact with water.
- Protect from moisture. If moisture enters container, pressure can build up which can cause a sealed container to pressurize and burst.
- Keep container tightly closed.
- Keep only in original container.
- Avoid breathing mist or spray.
- **Do Not** get in eyes, on skin, or on clothing.
- Wash thoroughly after handling.
- **Do Not** eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Contaminated work clothing should not be allowed out of the workplace.

- Wear protective gloves/protective clothing/eye protection/face protection.
- If swallowed; immediately get medical attention.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Take precautionary measures against static discharge.

Response:

- **Skin:** Remove contaminated clothing. Wash affected areas thoroughly with soap and water.
 - **Eyes:** Flush with clean lukewarm water (low pressure) for at least 15 minutes and obtain medical attention immediately.
 - **Inhalation:** Remove victim to fresh air. Administer oxygen or artificial respiration as needed. Obtain medical attention.
- Ingestion:** **Do Not** induce vomiting. Give 250 ml of milk or water to drink and get immediate medical attention.

Storage:

- Store in tightly closed containers.
- Protect from moisture and foreign materials.
- Ideal storage temperature range is 50-81°F.

Disposal:

- **Waste Disposal Method:**
Waste disposal should be in accordance with existing federal, state and local environmental control laws. Incineration is the preferred method.
- **Empty Container Precautions:**
Empty containers retain product residue. Observe all precautions for product.
Do Not heat or cut empty container with electric or gas torch.
Do Not reuse without thorough commercial cleaning and reconditioning.
If container is to be disposed, ensure all product residues are removed prior to disposal.

SECTION 3 – COMPOSITION

<u>CHEMICAL NAME</u>	<u>CAS #</u>	<u>APPROX %</u>
Naphtha Light Aromatic Solvent	64742-95-6	33.0
Castor oil	8001-79-4	6.0
Silicon oxide (synthetic)	31-86-9	3.0
Aluminum oxide (non-fibrous)	1344-28-1	3.0
Nickel	7440-02-0	2.0
Chromium	7440-47-3	2.0
Micaceous Iron Oxides	1309-37-1	28.0
Aluminum Flake	7429-90-5	13.0
Iron	7439-89-6	10.0

SECTION 4 – FIRST AID MEASURES

Eye contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Use lukewarm water if possible. Use fingers to ensure that eyelids are separated and that the eye is being irrigated. Get medical attention.

Skin contact

Immediately remove contaminated clothing and shoes. Wash off with soap and water. Use lukewarm water if possible. Wash contaminated clothing before reuse. For severe exposures, immediately get under safety shower and begin rinsing. Get medical attention if irritation develops.

Inhalation

Move to an area free from further exposure. Get medical attention immediately. Administer oxygen or artificial respiration as needed.

Ingestion

Do Not induce vomiting. Wash mouth out with water. **Do Not** give anything by mouth to an unconscious person. Get medical attention.

Notes to physician

Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation as needed. Workplace vapors could produce reversible corneal epithelial edema impairing vision.

Skin: This compound is a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn.

Ingestion: Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of the compound.

Inhalation: Treatment is essentially symptomatic.

SECTION 5 – FIRE-FIGHTING MEASURES

Flash Point (Method Used): 108°F Closed Cup

Flammable limits: Auto ignition temperature 880°F

Extinguishing Media: Dry chemical, carbon dioxide (CO²), foam, water spray for large fires

Special Fire Fighting Procedures: Firefighters should wear NFPA compliant structural firefighting protective equipment including self-contained breathing apparatus and NFPA compliant helmet, hood, boots and gloves. Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse. During a fire, isocyanate vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. Exposure to heated diisocyanate can be extremely dangerous.

Unusual Fire & Explosion Hazards: Closed container may forcibly rupture under extreme heat or when contents are contaminated with water (CO² formed). Use cold-water spray to cool fire-exposed containers to minimize the risk of rupture.

Decomposition Products: May be toxic and irritating

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spill and Leak Procedures

Evacuate non-emergency personnel. Isolate the area and prevent access. Remove ignition sources. Notify management. Put on protective equipment. Control source of the leak. Ventilate. Contain the spill to prevent spread into drains, sewers, water supplies, or soil. Call ChemTrec at 800-424-9300 or 703-527-3887 for assistance and advice. Major Spill or Leak (Standing liquid): Released material may be pumped into closed, but not sealed, metal container for disposal. Process can generate heat. Minor Spill or Leak (Wet surface): Cover spill area with suitable absorbent material (Kitty Litter, Oil-Dri®, etc). Saturate absorbent material with neutralization solution and mix. Wait 15 minutes. Collect material in open-head metal containers. Repeat applications of decontamination solution, with scrubbing, followed by absorbent until the surface is decontaminated. Check for residual surface contamination. Swype® test kits have been used for this purpose. Apply lid loosely and allow containers to vent for 72 hours to let carbon dioxide (CO²) escape.

Additional Spill Procedures/Neutralization

Neutralization solutions:

- (1) Colorimetric Laboratories Inc. (CLI) decontamination solution.
- (2) A mixture of 75% water, 20% non-ionic surfactant (e.g. Plurafac SL-62, Tergitol TMN-10) and 5% n- Propanol.
- (3) A mixture of 80% water, 20% non-ionic surfactant (e.g. Plurafac SL-62, Tergitol TMN-10).
- (4) A mixture of 90% water, 3-8% ammonium hydroxide or concentrated ammonia, and 2% liquid detergent.

Andek requires that CHEMTREC be immediately notified (800-424-9300) when this product is unintentionally released from its container during its course of distribution, regardless of the amount released. Distribution includes transportation, storage incidental to transportation, loading and unloading. Such notification must be immediate and made by the person having knowledge of the release.

SECTION 7 – HANDLING & STORAGE

Storage temperature:

Minimum:	18 °C (64.4 °F)
Maximum:	40 °C (104 °F)

Storage period

6 Months @ 25 °C (77 °F): after receipt of material by customer.

Handling/Storage Precautions

Do not breathe vapors, mists, or dusts. Wear respiratory protection if material is heated, sprayed, used in a confined space, or if the exposure limit is exceeded. Warning properties (irritation of the eyes, nose and throat or odor) are not adequate to prevent overexposure from inhalation. Avoid contact with skin and eyes. Wear appropriate eye and skin protection. Wash thoroughly after handling. **Do Not** breathe smoke and gases created by overheating or burning this material. Decomposition products can be highly toxic and irritating. Store in tightly closed containers to prevent moisture contamination. **Do Not** reseal if contamination is suspected.

Further Info on Storage Conditions

Employee education and training in the safe use and handling of this product are required under the OSHA Hazard Communication Standard 29 CFR 1910.1200.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits:

CHEMICAL NAME	PEL	TLV
Chromium	1 mg/m ³	0.5 mg/m ³
Nickel	1 mg/m ³	1 mg/m ³
Silicon	10; 5 mg/m ³	10 mg/m ³
*Cumene		50ppm
*Naphthalene		10ppm

*Contains less than .01% of total volume

Engineering controls:

Local exhaust should be used to maintain levels below the TLV.

Respiratory protection

The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134).

Hand protection

Gloves should be worn. Nitrile rubber showed excellent resistance. Butyl rubber, neoprene and PVC are also effective.

Eye protection

When directly handling liquid product, eye protection is required. Examples of eye protection include a chemical safety goggle or chemical safety goggle in combination with a full face shield when there is a greater risk of splash.

Skin and body protection

Avoid all skin contact. Depending on the conditions of use, cover as much of the exposed skin area as possible with appropriate clothing to prevent skin contact.

Additional Protective Measures

Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of this product. Follow all label instructions.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Heavy Paste

Physical state: Liquid

Color: Metallic Grey

Odor: Mild

Odor Threshold: None Established

pH: None Established

Melting Point/freezing point: None Established

Initial boiling point/ boiling range: 600°F

Flash point: 108°F

Evaporation rate: 0.2 (Butyl Acetate = 1)

Flammability (solid, gas): Flammable

Upper/lower flammability or explosive limits: 5.7% / 0.8%

Vapor pressure: 0.8kPa (6mmHg) at 20°C (68°F)

Vapor density: 4 (Air =1)

Relative density: 2.5 kg/Lt

Solubility: Insoluble reacts with water to evolve H² gas

Partition coefficient: N-Octanol/water: N/A

Auto-ignition temperature: 471°C (880°F)

Decomposition temperature: N/A

Viscosity: 20,000 centipoises @ 25°C

SECTION 10 – STABILITY AND REACTIVITY

Hazardous Reactions

Contact with moisture, other materials that react with aluminum, or temperatures above 350° F (177° C), may cause release of flammable gas.

Materials to avoid

Water, Amines, Strong bases, Alcohols

Hazardous decomposition products

By Fire and High Heat: Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke and other undetermined compounds.

SECTION 11 – TOXICOLOGICAL INFORMATION

NUMERICAL MEASURES OF TOXICITY:

Acute Toxicity:

CHEMICAL NAME	Oral LD50	Dermal LD50 Rat (mg/kg)	Inhalation LC Rat (mg/1/4 h)
Nickel Metal	Rat >9000 mg/kg	Unknown	Unknown

Inhalation:

The National Toxicology Program has listed nickel as reasonably anticipated to be a carcinogen based on the production of injection site tumors. The International Agency for Research on Cancer (IARC) found there was inadequate evidence that metallic nickel is carcinogenic to humans but since there was sufficient evidence that it is carcinogenic to animals, IARC concluded that metallic nickel is possibly carcinogenic to humans. In 1997, the ACGIH categorized elemental nickel as: A5 "Not Suspected as a Human Carcinogen". Epidemiological studies of workers exposed to nickel powder and to dust and fume generated in the production of nickel alloys and of stainless steel have not indicated the presence of a significant respiratory cancer hazard.

Evidence for the association of nickel compound exposures and cancer risk comes mainly from workers in now obsolete nickel refining operations where very high concentrations of airborne nickel, mostly present as oxidic or sub-sulphidic species at up to 100mg/m³ or more, were associated with excess nasal and lung cancers.

The inhalation of nickel powder has not resulted in an increased incidence of malignant lung tumors in rodents. Repeated intratracheal instillation of nickel powder produced an increased incidence of malignant lung tumors in rats. Repeated intratracheal instillation of nickel powder did not produce an increased incidence of malignant lung tumors in hamsters when administered at the maximum tolerated dose. Single intratracheal instillations of nickel powder in hamsters at doses near the LD50 produced an increased incidence of fibrosarcoma, mesothelioma and rhabdomyosarcoma.

Inhalation of nickel powder at concentrations 15 times the TLV irritated the respiratory tract in rodents.

Inhalation of nickel may induce asthma. This effect is rare. It has been reported in welders where exposures to nickel are often mixed with other chemical substances. Persons with a known history of nickel sensitive asthma should avoid such contact.

Skin Contact:

Prolonged and intimate contact with metallic nickel may cause irritation to the skin and nickel sensitivity, which may result in allergic skin rashes.

One case has been reported of asthma induced by external exposure to a nickel-containing skin clip and by skin contact with nickel.

Wounds:

Nickel metal powder has caused tumors at the site of injection in rodents. However, studies do not suggest a significant risk for humans from nickel containing prostheses.

Ingestion:

The U.S. National Institute for Occupational Safety and Health (NIOSH) concluded there is no evidence that nickel and its inorganic compounds are carcinogenic when ingested. The U.S. Food and Drug Administration has affirmed that nickel is generally recognized as safe (GRAS) as a direct human food ingredient.

Preexisting Conditions:

Prolonged and intimate skin contact can cause an allergic skin rash in previously sensitized individuals.

Reproductive Toxicity:

Animal experiments indicate that soluble nickel ingestion causes adverse effects on fetal development at a threshold oral exposure of 2.2 mg/ Ni/kg/day by pregnant rats. Data are insufficient to determine if this effect occurs in humans and no regulatory agency has classified soluble forms of nickel as reproductive risks for humans.

SECTION 12 – ECOLOGICAL INFORMATION**Intratracheal Instillation:**

CHEMICAL NAME	Test Species	Total dose, mg/Ni	# of instillations or injections	# with tumors/ # examined
Dust from grinding 18 Cr/10 Ni Stainless Steel, 6.79 Ni, 13.9 Cr, 59.2 Fe	Hamster	2.4	12	0/62
		7.3	12	0/62
26.8 Ni, 16.2 Cr, 39.2 Fe	Hamster	10	1	0/100
	Hamster	20	1	0/100
	Hamster	40	1	0/100
	Hamster	80	4	0/100
66.5 Ni, 12.8 Cr, 6.5 Fe	Hamster	10	1	1/100
	Hamster	20	1	8/100
	Hamster	40	1	12/102
	Hamster	80	4	10/100
Nickel Powder	Hamster	9.6	12	1/56
	Hamster	10	1	3/100
	Hamster	20	1	3/100
	Hamster	40	1	10/100
	Rat	6	20	10/39
	Rat	9	10	8/32

Intramuscular Injection:

CHEMICAL NAME	Test Species	Total dose, mg/Ni	# of instillations or injections	# with tumors/ # examined
Ferronickel (40% Ni)	Rat	14	1	0/20
Nickel Powder	Rat	14	1	13/20

Intraperitoneal Injection:

CHEMICAL NAME	Test Species	Total dose, mg/Ni	# of instillations or injections	# with tumors/ # examined
32 Ni, 21 Cr, 45 Fe, 0.8 Mn	Rat	50	1	2/33
	Rat	100	2	1/36
74 Ni, 16 Cr, 7 Fe	Rat	50	1	12/35
	Rat	100	2	22/33
Nickel Powder	Rat	6	1	4/34
	Rat	12	2	5/34
	Rat	25	25	25/35
	Rat	75	10	46/48

SECTION 13 – DISPOSAL CONSIDERATIONS**Waste Disposal Method**

Waste disposal should be in accordance with existing federal, state and local environmental control laws. Incineration is the preferred method.

Empty Container Precautions

Empty containers retain product residue; observe all precautions for product. **Do Not** heat or cut empty container with electric or gas torch because highly toxic vapors and gases are formed. **Do Not** reuse without thorough commercial cleaning and reconditioning. If container is to be disposed, ensure all product residues are removed prior to disposal.

SECTION 14 – TRANSPORT INFORMATION

UN #	1263
UN PROPER SHIPPING NAME:	Paint
HAZARD CLASS:	3
PACKING GROUP:	III
ENVIRONMENTAL HAZARDS:	N/A
GUIDANCE ON TRANSPORT IN BULK:	N/A
TRANSPORT LABELS REQUIRED:	Class 3

Transport labels required: Flammable liquid. (In the U.S., this material may be re-classified as a combustible liquid and is not regulated in containers less than 119 gallons via surface transportation.)

SECTION 15 – REGULATORY INFORMATION

US Federal Regulation:

SARA 311/312 Hazard Categories

CHEMICAL NAME	CWA reportable quantities	CWA Toxic Pollutants	CWA Priority Pollutants	CWA Hazardous Substances	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity RQ
*1,2,4-Trimethylbenzene	N/A	Listed	N/A	Chronic Health Hazard	Acute	N/A	N/A
*Xylene	N/A	Listed	N/A	Chronic Health Hazard	Acute	N/A	N/A
*Cumene	5000 lbs	Listed	N/A	Chronic Health Hazard	Acute	Required	5000 lbs

*Contains less than .01% of total volume

US State Right to Know Regulations: New Jersey, Massachusetts or Pennsylvania substance lists

CHEMICAL NAME	CAS #
*1,2,4-Trimethylbenzene	95-63-6
*Cumene	98-82-8

*Contains less than .01% of total volume

California Prop 65:

Warning: This product contains chemical(s) known to the State of California to be Carcinogenic.

CHEMICAL NAME	CAS #
Cumene	98-82-8

*Contains less than .01% of total volume

SECTION 16 – OTHER INFORMATION (HMIS RATING)

Health	2
Flammability	2
Physical Hazard	1
Personal Protection	H

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

* = Chronic Health Hazard

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