Safety Data Sheet

Date of Issue: 06/01/2026

REF 1520™
Special Purpose Contact Adhesive

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

· **Product identifier:** Rubber Contact Adhesive

· **Trade name: REF 1520™**

· **Manufacturer/Supplier:**
Aeroflex USA, Inc.
282 Industrial Park, Rd., Sweetwater, TN 37874
Phone: Toll Free 1-866-237-6235

· **Emergency telephone number:** ChemTel Inc.
1-800-255-3924 (North America) , 1-813-248-0585 (International)

SECTION 2 – HAZARDS IDENTIFICATION

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

Flammable liquids; Category 2
Skin corrosion/irritation; Category 2
Serious eye damage/eye irritation; Category 2A
Reproductive toxicity; Category 2
Specific target organ toxicity, single exposure; Narcotic effects; Category 3
Sensitization, Skin; Category 1
Specific target organ toxicity, repeated exposure; Category 2
Aspiration hazard; Category 1

GHS Pictograms

Signal Word

Danger

Hazard Statements

Highly flammable liquid and vapor.
Causes skin irritation.
Causes serious eye irritation.
Suspected of damaging fertility or the unborn child via inhalation.
May cause drowsiness or dizziness.
May cause an allergic skin reaction.
May be fatal if swallowed and enters airways.
May cause damage to organs <Central Nervous System, Peripheral Nervous System, Auditory System, and Eyes> through prolonged or repeated exposure.

Precautionary Statements

Obtain special instructions before use. (See Section 7.) Do not handle until all safety precautions have been read and understood. Keep away from

heat/sparks/open flames/hot surfaces. — No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/…/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. In case of fire: Use fire extinguishers suitable for Classes B, C, or E for extinction. Do not breathe vapors. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection. Wash hands and exposed skin thoroughly after handling. Wash contaminated clothing before reuse. Store in a well-ventilated place. Keep cool. 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 Classified

None.

% With Unknown Acute Toxicity : 5% by weight of this product is comprised of ingredients with unknown acute toxicity.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS #	% (by weight)
Acetone	67-64-1	30.00 – 60.00
Hexanes	110-54-3	10.00 – 30.00
Toluene	108-88-3	10.00 – 30.00
p-tert-Butylphenol formaldehyde resin	25085-50-1	5.00 – 10.00

The 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 : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: call a doctor/physician.

Skin contact : Remove/Take off immediately all contaminated clothing. Flush affected skin with gently flowing lukewarm water for at least 20 minutes. Seek immediate medical attention/advice.

Eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

Ingestion : Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

Notes for Physician : Treat symptomatically.

Signs and symptoms of short-term (acute) exposure

Inhalation : May cause irritation to the nose, throat, and respiratory tract. Inhalation of high concentrations may cause CNS effects such as nausea, headache, dizziness, fatigue, unconsciousness, and coma. May cause motor incoordination and speech abnormalities. Breathing high concentrations of this material, for example in an enclosed space or by intentional abuse, can cause irregular heartbeats which can cause death.

Skin : May cause moderate skin irritation. Product may be absorbed through the skin, producing effects similar to inhalation or ingestion. Allergic skin reaction (non-photo-induced): Symptoms may include redness, swelling, blistering, and itching.

Eyes : Direct contact will cause moderate to severe irritation to the eyes. Symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion : May cause irritation to the mouth, throat, and stomach. Symptoms may include abdominal pain, nausea, vomiting, and diarrhea. This material can get into the lungs (aspiration) during swallowing or vomiting. Small amounts in the

lungs can cause chemical pneumonitis, possibly leading to chronic lung dysfunction or death.

Effects of long-term (chronic) exposure

: Chronic exposure may cause drying, cracking, and defatting of the skin. Chronic effects of ingestion and subsequent aspiration into the lungs may cause pneumatocele (lung cavity) formation and chronic lung dysfunction. Prolonged occupational overexposure to solvents may cause irreversible brain and nervous system damage (sometimes referred to as “Solvent or Painter’s Syndrome”). Intentional misuse by intentionally concentrating and inhaling the vapors from this product may be harmful or fatal. Toluene, a component of this product, may cause harm to the human fetus, based on tests with laboratory animals. Long term overexposure to Toluene has been associated with peripheral neuropathy (damage to the nerves of the hands and feet), liver effects, kidney effects, impaired color vision and hearing damage.

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.
Ingestion.

SECTION 5 – FIRE FIGHTING MEASURES

Suitable extinguishing media : Carbon dioxide, dry chemical powder, appropriate foam or water fog.

Unsuitable extinguishing media : water jet

Hazardous combustion products : Carbon oxides; Hydrocarbons; Aldehydes; Hydrogen chloride gas; other unidentified organic compounds.

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.

Environmental precautions : Do not allow material to enter drains or contaminate ground water system.

Fire hazards/conditions of flammability

: Highly flammable liquid. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Vapors may be heavier than air and may collect in confined and low-lying areas. Vapor can travel considerable distance and flashback to a source of ignition. Material will float on water and can be re-ignited at the water’s surface.

Flammability classification (OSHA 29 CFR 1910.1200, WHMIS 2015)

: Flammable Liquid, Category 2.

Flammability classification (NFPA)

: Flammable Liquid Class 1B.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions : Restrict access to area until completion of clean-up. All persons dealing with clean-up should 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. Eliminate all ignition sources. Stop spill or leak at source if safely possible. Use non-sparking tools to contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g., sand), then place absorbent material into a container for later disposal (see Section 13.) Do not

flush into surface water or sanitary sewer system. Notify the appropriate authorities as required.

Incompatible materials : See Section 10.

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).

US CERCLA Reportable quantity (RQ):Hexane (5000 lbs / 2270 kg); Acetone (5000 lbs / 2270 kg); Toluene (1000 lbs / 454 kg).

SECTION 7 – HANDLING AND STORAGE

Special Instructions : HIGHLY FLAMMABLE LIQUID AND VAPOR. May cause flash fire. Keep away from fire, sources of heat, or sources of electrical discharges. Aspiration Hazard – may enter lungs and cause damage. If ingested, do not induce vomiting. Inhaling fumes may cause dizziness, drowsiness, nausea, headaches, and/or other Central Nervous System (CNS) symptoms. Contains a material that may cause peripheral nervous system damage. Breathing high concentrations can cause irregular heartbeats which may be fatal. Developmental hazard - Contains Toluene, which may cause birth defects or other reproductive harm**.**

Safe handling procedures : Wear chemically resistant protective equipment during handling. Use in a well-ventilated area. Training the workers on the potential health hazards associated with product vapor is important. Do not breathe vapors. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Keep away from oxidizing materials. Keep containers tightly closed when not in use. Wash hands and exposed skin thoroughly after handling. Containers of this material may be hazardous when empty, since they retain product residues (vapors, liquid).

Storage requirements : Store in a cool, dry, well-ventilated area. No smoking in the area. Do not store near any incompatible materials (see Section 10). Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Protect against physical damage.

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 : No exposure limits have been established for the product itself. Below are exposure limits for the components in the product.

Ingredients	CAS #	ACGIH TLV		OSHA PEL	
		TWA	STEL	PEL	STEL
Acetone	67-64-1	500 ppm	750 ppm	1000 ppm TWA 2400 mg/m^3 TWA	N/Av
Hexanes	110-54-3	50 ppm	N/Av	500 ppm 1800 mg/m^3	N/Av
Toluene	108-88-3	20 ppm	N/Av	200 ppm	300 ppm (10 min)
p-tert-Butylphenol formaldehyde resin	25085-50-1	N/Av	N/Av	N/Av	N/Av

Ventilation and engineering measures

: Use with adequate ventilation. Provide adequate cross air circulation. Use explosion-proof general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.

Respiratory protection	:	Respiratory protection is required if the concentrations exceed the TLV. If the TLV is exceeded, wear a NIOSH/MSHA-approved organic vapor respirator.
Skin protection	:	Impervious gloves must be worn when using this product. Glove materials such as nitrile rubber or Viton (fluorocarbon rubber) are recommended. Advice should be sought from glove suppliers regarding the glove's breakthrough time for the ingredients listed in Section 3.
Eye / face protection	:	Chemical goggles are recommended. A full face shield may also be necessary.
Other protective equipment	:	Full chemical-resistant protective clothing should be used whenever splashing is anticipated. 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. Do not eat, drink or smoke when using this product. Clean all equipment and clothing, and shower with mild soap and water at end of each work shift.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	liquid	**Appearance**	:	pale yellow liquid.
Odor	:	Characteristic solvent odor			
Odor threshold	:	N/Av	**pH**	:	N/Ap
Specific gravity	:	0.83	**Boiling point**	:	> 133°F (>56.5°C)
Coefficient of water/oil distribution	:	N/Av	**Melting/Freezing point**	:	N/Av
Solubility in water	:	negligible	**Vapor pressure (mm Hg @ 20°C / 68°F)**	:	180
Evaporation rate (*n*-Butyl acetate = 1)	:	N/Av	**Vapor density (Air = 1)**	:	N/Av
Volatiles (% by weight)	:	80 – 82	**General information**	:	N/Av
Volatile organic compounds (VOCs)	:	615 g/L (Calculated, SCAQMD Rule 1168)			
Particle size	:	N/Av	**Flammability classification (GHS)**	:	Flammable Liquid Cat. 2
Flash point	:	-15°F (-26°C)	**Lower flammable limit (% by vol)**	:	Not available
Flash point method	:	Setaflash closed	**Upper flammable limit (% by vol)**	:	Not available
Auto-ignition temperature	:	N/Av	**Decomposition temperature**	:	Not available
Viscosity	:	Not available	**Oxidizing properties**	:	Not available

Explosion data: Sensitivity to mechanical impact / static discharge

: Not expected to be sensitive to mechanical impact. Static discharge could ignite the vapors of this product.

SECTION 10 – REACTIVITY AND STABILITY INFORMATION

Stability and reactivity	:	Stable under the recommended storage and handling conditions prescribed.
Hazardous polymerization	:	Hazardous polymerization does not occur.
Conditions to avoid	:	Keep this product away from heat, sparks, flame, and other sources of ignition (e.g., pilot lights, electric motors, static electricity).

Materials to avoid and incompatability

: Strong oxidizing agents; Reducing agents; Acids, Bases.

Hazardous decomposition products

: None known, refer to hazardous combustion products in Section 5.

SECTION 11 – TOXICOLOGICAL INFORMATION

Target organs	:	Central Nervous System (CNS); Eyes; Skin; Kidneys; Lungs; Liver; Heart.
Routes of Exposure	:	*Inhalation:* YES *Skin Absorption:* YES *Skin and Eyes:* YES *Ingestion:* YES
Symptoms of exposure	:	See Section 4.
Toxicological data	:	See below for individual ingredient acute toxicity data.

Ingredients		LC50 (4 hr) Inhalation, rat, mg/L	LD50 Oral, rat, mg/kg	LD50 Dermal, rabbit, mg/kg
Acetone	67-64-1	50.1	5800	20000
Hexane	110-54-3	31.86	16000	> 2000
Toluene	108-88-3	12.5	636	8390
p-tert-Butylphenol formaldehyde resin	25085-50-1	N/Av	N/Av	N/Av

Calculated Acute Toxicity Estimates for the Product

Inhalation : > 25 mg/L
Oral : > 2000 mg/kg
Dermal : > 5000 mg/kg

Carcinogenic status : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects : Contains Toluene. Toluene may cause fetotoxic effects at doses which are not maternally toxic, based on animal data.

Germ Cell Mutagenicity : None known.

Epidemiology : Not available.

Sensitization to material : This product contains a component known to cause allergic skin sensitization reactions.

Synergistic materials : N/Av

Irritancy : Severe eye irritant. Moderate irritant for respiratory system and skin.

Other important hazards : See Section 2 for additional information.

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.

Important environmental characteristics

: No data is available on the product itself.

Ecotoxicological : No data is available on the product itself.

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. Empty containers retain residue (liquid and/or vapor) and can be dangerous. Do not cut, weld, drill or grind on or near this container.

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.

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	**UN 1133**	**ADHESIVES containing flammable liquid (Acetone, Hexane)**	**3**	**II**	
TDG Additional Information	**May be shipped as Limited Quantity when transported in containers no larger than 5.0 Litres; in packages not exceeding 30 kg gross mass. Refer to TDG Part 1: 1.11, 1.17, 1.33; and Schedule 1.**				
49 CFR/DOT	**UN 1133**	**ADHESIVES containing flammable liquid (Acetone, Hexane)**	**3**	**II**	
49 CFR/DOT Additional Information	**May be shipped as Limited Quantity when transported in containers no larger than 5.0 Litres; in packages not exceeding 30 kg gross mass. Refer to 49 CFR 173.150(b) and Special Provision 149.**				

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 the Domestic Substances List (DSL).

US Federal Information:

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

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): Hexane (5000 lbs / 2270 kg); Acetone (5000 lbs / 2270 kg); Toluene (1000 lbs / 454 kg).

SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present in this material.

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

Fire Hazard
Acute Health Hazard
Chronic Health Hazard.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This product may be subject to SARA notification requirements, since it contains Toxic Chemical constituents above de minimus concentrations. This product contains: Hexane; Toluene.

U.S. State Right To Know Laws

California Proposition 65: Warning! This product contains a chemical known to the State of California to cause developmental harm. This product contains: Toluene.

Other State Right to Know Laws:

On State RTK List?	CAS No.	CA	MA	MN	NJ	NY	PA	RI
Acetone	67-64-1	YES	YES	YES	YES	YES	YES	YES
Hexane	110-54-3	YES	YES	YES	YES	YES	YES	YES
Toluene	108-88-3	YES	YES	YES	YES	YES	YES	YES

SECTION 16 – OTHER INFORMATION

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

Health: *2 *Flammability* 3 *Physical Hazard:* 0

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