

**MATERIAL SAFETY DATA SHEET
FOR COATINGS, RESINS, AND RELATED MATERIALS**

MANUFACTURED FOR: DENCO INDUSTRIAL PRODUCTS
P.O. Box 434, 9701 Darrow Road
Vermilion, OH 44089

EMERGENCY TELEPHONE NO.
(412) 221-7020
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DATE OF PREPARATION: 6/05/96

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NUMBER:	DMQ-HT-24	HMIS RATING:
PRODUCT NAME:	DENCO HI-TEMP METAL QWIK	2 HEALTH
PRODUCT CLASS:	ACRYLIC COATING	3 FLAMMABILITY
		2 REACTIVITY
		C PERSONAL PROTECTION

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT	CAS #	PERCENT	OCCUPATIONAL EXPOSURE LIMITS		VAPOR PRESSURE
			TLV	LEL	

Toluol	108-88-3	25 - 30%	100.0	1.0	54.0
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This product contains chemicals subject to the reporting requirements of Section 313 of Title III

SECTION III - PHYSICAL DATA

BOILING RANGE 230-232° F	30.58% VOLATILE VOLUME	WT/GAL 12.10
EVAPORATION RATE	VAPOR DENSITY	V.O.C.
___ FASTER	<u>X</u> HEAVIER	3.80 LBS/GAL
<u>X</u> SLOWER THAN ETHER	___ LIGHTER THAN AIR	

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATIONS:	OSHA - Flammable Solid 1B	FLASH POINT (F) 45°
	DOT - Flammable Solid	LEL 000

EXTINGUISHING MEDIA:

X FOAM ___ ALCOHOL/FOAM X CO2 X DRY CHEMICAL ___ WATER/FOG ___ OTHER

UNUSUAL FIRE AND EXPLOSION HAZARDS: Solvent vapors are heavier than air and may travel along the ground and be ignited at locations distant from material. Never use welding or cutting torches near containers (empty also) because product or residue can ignite explosively. Direct water stream may spread burning product.

SPECIFIC FIREFIGHTING PROCEDURES: Wear self-contained breathing apparatus and full protective gear. Use water ONLY to cool containers, equipment, or structures nearby.

SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:

INGESTION: Could cause nausea.

EYE AND SKIN: Direct contact will produce irritation.

INHALATION: Vapors could cause headache, nausea, dizziness or loss of consciousness.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY OVEREXPOSURE: Eye irritation, irritation of mucous membranes, dry skin, headache, dizziness, nausea, or loss of consciousness

PRIMARY ROUTES OF ENTRY: X DERMAL X INHALATION X INGESTION

EMERGENCY AND FIRST AIR PROCEDURES:

INGESTION: Drink 1 or 2 glasses of water to dilute. Do NOT induce vomiting. Consult a physician or poison control center immediately.

EYE AND SKIN: Flush eyes with plenty of water for 15 minutes. Flush skin with soap and water. Remove contaminated clothing. Consult a physician.

INHALATION: Remove to fresh air. Treat symptomatically. Call a physician.

SECTION VI - REACTIVITY DATA

STABILITY UNSTABLE STABLE
 HAZARDOUS POLYMERIZATION MAY OCCUR WILL NOT OCCUR
 HAZARDOUS DECOMPOSITION PRODUCTS: Burning may produce carbon monoxide.
 CONDITIONS TO AVOID: Ignition sources.
 INCOMPATIBILITY (MATERIALS TO AVOID): Avoid contact with strong oxidizing agents.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE OF RELEASE OR SPILL: Eliminate all ignition sources. Ventilate area. Persons not wearing protective equipment should be kept away from area of spill until cleanup has been completed. Stop spill at source and absorb with an absorbent material.
 WASTE DISPOSAL METHOD: Material not useable for its original purpose and contaminated absorbent will be considered hazardous waste. Dispose of in accordance with local, state, & federal regulations.

SECTION VIII - SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION: If workplace exposure limit(s) of product or any component is exceeded (see Section 2), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regs. also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your safety equipment supplier). Engineering or administrative controls should be implemented to reduce exposure.
 VENTILATION: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TVL (S).
 PROTECTIVE GLOVES: Wear resistant gloves such as nitrile rubber to prevent skin contact.
 EYE PROTECTION: Chemical splash goggles in compliance with OSHA regulations are advised.
 OTHER PROTECTIVE EQUIPMENT: To prevent repeated or prolonged skin contact, wear impervious clothing and boots. Do not wear contact lenses.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store material in tightly closed containers away from sources of heat or ignition. Containers should be grounded when transferring. Do not transfer in unmarked containers. Never use pressure to empty containers; loosen closures carefully.
 OTHER PRECAUTIONS: Empty containers may contain hazardous product residues. Dispose of in accordance with local, state and federal regulations.

The information contained herein is based on the data available to us and is believed to be correct. However, DENCO Industrial Products makes no warranty, expressed or implied, regarding the accuracy of this data or the results to be obtained from the use thereof. DENCO Industrial Products assumes no responsibility for injury from the use of the product described herein.

TO INTRODUCE OUR PRODUCT LINE:



ONE-PART - NO MIXING NEEDED

- ☒ FOR REPAIR OF HOLES, DENTS, CRACKS AND SURFACE DEFECTS IN ALUMINUM, STEEL, COPPER, BRASS, IRON, WOOD, GLASS, CONCRETE AND MOST PLASTICS
- ☒ CAN BE USED ON VEHICLE RADIATORS AND GAS TANKS *
- ☒ DOES NOT SHRINK, PEEL, CHIP, OR CRACK. WATERPROOF AND RUSTPROOF
- ☒ CAN BE DRILLED, SAWED, SANDED, TAPPED, AND PAINTED AFTER HARDENING
- * ☒ OPERATING TEMPERATURES TO 350° F
--- HIGH-TEMPERATURE METAL QWIK TO 1000° F.
- ☒ APPLY WITH PUTTY KNIFE, CAULKING GUN, BRUSH, OR SPRAYER

DENCO METAL QWIK™

PRODUCT DESCRIPTION:

DENCO METAL QWIK™ is a metal-filled putty used to repair holes, dents, cracks and other surface defects in various substrates. It can repair holes and cracks in tanks, along with rusted areas, before painting. It can be used to build up low areas and smooth over weldments. METAL QWIK™ can be painted with all common lacquers.

PRODUCT DATA:

Weight/gallon	12.38 lbs.
Total Solids by Weight	68.73%
Total Solids by Volume	45.51%
Viscosity	Putty
Reducing Solvent	DENCO METAL QWIK™ Solvent & Cleaner
Clean-up Solvent	DENCO METAL QWIK™ Solvent & Cleaner
Recommended Cure	Air Dry
Substrates	All metals, wood, glass, plastics
Heat Resistance Limits	-65°F to 350°F (-54°C to 177°C)
Hi-Temp Heat Resistance Limits	-65°F to 1000°F (-54°C to 538°C)

APPLICATION:

Can be applied with putty knife, trowel, spatula, squeegee, caulking gun, or reduced for brush or spray with DENCO METAL QWIK™ Solvent & Cleaner. Hi-Temp METAL QWIK™ should be allowed to dry for 24 hours, then baked at 425° for 60 minutes.

PRODUCT LIMITATIONS:

DENCO METAL QWIK™ will not adhere to plastics that are dissolvable by ketone solvents; for example, polystyrene or polyacrylate. METAL QWIK™ has excellent adhesion to PVC and fibreglass reinforced plastic.

STORAGE:

Maintain storage temperatures between 35° to 95°F. To prolong the life of an open can, add enough DENCO METAL QWIK™ Solvent & Cleaner to cover the exposed surface of the product before sealing the can. Stir products thoroughly before the next use.

SAFETY PRECAUTIONS:

Read the Material Safety Data Sheets for all DENCO METAL QWIK™ products before handling. Use in a well ventilated area.

IMPORTANT NOTICE:

This product is sold without Guarantee or Warranty, either expressed or implied, and upon condition that purchasers shall make their own tests and evaluations to determine suitability of such product for their particular purpose or application. The information contained herein is to assist customers in determining whether the product is suitable for their use.

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METAL QWIK TECHNICAL DATA

DESCRIPTION: One component aluminum-filled metal repair putty.

COLOR: Metal gray in paste form. Aluminum colored when sanded or polished.

ADHESION: Excellent adhesion to clean, dry surfaces of metals, wood, glass, and most plastics. Will not adhere to plastics that are dissolvable by ketone solvents, for example, polystyrene or polyacrylate. METAL QWIK has excellent adhesion to PVC and fiberglass.

HARDNESS: 81 on Shore D scale.

COEFFICIENT OF LINEAR EXPANSION: 13.7×10^{-6} Inch/inch per F.

STRENGTH: TENSILE - 800 lbs/square inch **COMPRESSIVE** - Approx. 22,000 psi

SPECIFIC GRAVITY: 1.95 at 75° F

WEIGHT: 12.38 lbs/gallon

HEAT RESISTANCE: When cured, temperatures from -65° F to 350° F. HI TEMP METAL QWIK, when cured according to instructions, -65° F to 1000° F.

CHEMICAL RESISTANCE: Not affected by dilute acids, gasoline, or petroleum products. Continuous exposure to mild alkalis will attack METAL QWIK.

COMBUSTIBILITY: Cured material will not support flame or combustion.

CONDUCTIVITY: Non-conductor. Can be anodically plated after preparing surface with pre-conductor.

THERMAL CONDUCTIVITY: Approx. 1-2 BTU per square foot.

MECHANICAL PROPERTIES: Cured METAL QWIK can be drilled, sanded, tapped, buffed, filed, or sawed with regular metal-working tools. Can be painted with all common lacquers. Does not shrink, crack, peel, rust, or decay.

DRYING TIME: Dependent upon depth of application. When thinned with METAL QWIK SOLVENT & CLEANER for brush or spray applications, dries immediately. A 1/8" application should dry in two to four hours.

STORAGE & SHELF LIFE: Storage temperatures should be between 35° - 95° F. Add METAL QWIK SOLVENT & CLEANER to cover the exposed surface of material in an open can. Seal can tightly, and stir products together for the next use.

SAFETY PRECAUTIONS: Read the Material Safety Data Sheets for both METAL QWIK METAL QWIK SOLVENT & CLEANER before handling.

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PRODUCT NAME:	DENCO METAL QWIK	2 HEALTH
PRODUCT CLASS:	VINYL COATING	3 FLAMMABILITY
		2 REACTIVITY
		C PERSONAL PROTECTION

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT	CAS #	PERCENT	OCCUPATIONAL EXPOSURE LIMITS		VAPOR PRESSURE
			TLV	LEL	
Melk	78-93-3	5 - 10 %	200.0	1.8	75.0
Toluol	108-88-3	20 - 25%	100.0	1.0	54.0

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SECTION III - PHYSICAL DATA

BOILING RANGE	175° - 230°F	30.88% VOLATILE VOLUME	WT/GAL	12.40
EVAPORATION RATE	___ FASTER	VAPOR DENSITY	V.O.C.	
	<u>X</u> SLOWER THAN ETHER	<u>X</u> HEAVIER		3.83 LBS/GAL
		___ LIGHTER THAN AIR		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATIONS:	OSHA - Flammable Solid 1B	FLASH POINT (F)	30°
	DOT - Flammable Solid	LEL	000

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