Penetrating Oil
8472 Technical Data Sheet

8472-Liquid

Description

The 8472 Penetrating Oil is optimized to afford the best rust busting characteristics while keeping your metals, plastics and paint safes. It has high hydrophobicity, which repels water, and low viscosity, which reduces friction and wear.

Applications & Usages

Use 8472 for lubricating, penetrating, and cleaning metal parts like nuts, bolts, locks, hinges, screws, clamps, shafts, pulleys, scales, and more. As well, it affords excellent corrosion resistance, while being almost odorless.

Six Superior Characteristics

Penetrates	Wicks through tight spaces and loosens frozen, seized, and rusted parts
Lubricates	Minimizes friction and wear with a low viscosity and long lasting oil blend
Protects	Prevents rust with corrosion inhibitors, and provides a preservative film
Displaces Moisture	Repels water due to its high hydrophobicity
Improves	Reduces friction and wear leading to greater machine efficiency
Cleans	Removes tar, sap, oils, greases, adhesives, label residues, and more

Other Benefits

- **Excellent Penetrating Ability** while still remaining plastic and paint safe
- **Volatile Organic Content of 0%** which means almost no odor and no contribution to smog
- **CFC Free, Chlorinated Solvent Free** will not harm the ozone layer
- **Low Toxicity** when applied according to direction (RoHS Compliant)
- **Silicone Free**
- **Economical**

Work Schedule*

Properties	***Value***
Shelf Life @ 23 °C [73 °F]	indeterminate
Working Life	>5 years
Storage Temperature	5 to 45°C [41 to 113 °F]

*Shelf life is not expected to degrade or change with age due to the inert and non-volatile nature of the ingredients.

Service Ranges

Properties	***Value***
Service Temperature**	-20 to +100 °C [-4 to +212 °F]
Max coverage per can for 25 μm [0.001”]	<8 870 000 cm^2 [<9 547 ft^2]

**Propellant limits the lower temperature range, and the flash point the upper range. The actual operational range of the oil is wider than stated.

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Properties

Physical Property	*Method*	*Value*
Odor	—	slight hydrocarbon
Color		clear yellow tint
Viscosity at 23 °C [77 °F]	Brookfield viscometer	7.0 cP
Specific gravity at 23 °C [77 °F]	ASTM D 287	0.83
Flash Point	ASTM D 3278	66 °C [151 °F]
Autoignition		218 °C
Boiling Point		246 °C
Hydrophobic		Yes
Solubility in Water		non soluble
Surface Tension		20-30 dyne/sec*

* Estimated value based on components

Compatibility

The 8472 is designed not to damage the base metals nor most paints and plastics. Early estimates of compatibility are provided in the Chemical Compatibility table.

*Chemical Compatibility**	*Method*	*Value*
Metals	—	recommended
Woods	—	recommended
Paints (epoxy, phenolic, alkyd, urethane, latex)	—	safe
Paints (acrylic, latex, vinyl, polyurethanes)	—	safe
Plastics (nylon, teflon, polyacetal, polypropylene)	—	safe
Plastics (Polyurethanes, polyethylene, polysulfone)	—	safe
Rubbers (viton, NBR, fluorosilicone, polyester)	—	safe
Rubbers (nitrile, silicone, epichlorohydrin, EPDM)	—	safe
Rubbers (natural, neoprene, butyl, SBR)	—	*not estimated*
Polycarbonate, ABS, polyvinyl chloride	24 h; >24 h	safe; not tested
Styrofoam	12 h; 24 h	safe; fail

* Estimated values based on components and early test results.

Packaging and Supporting Products

Product Availability

- Cat. No. 8472-450G (20 oz) Aerosol
- Cat. No. 8472-4L (1 gal) / 8472-20L (5 gal) Liquid

Health, Safety, and Environmental Awareness

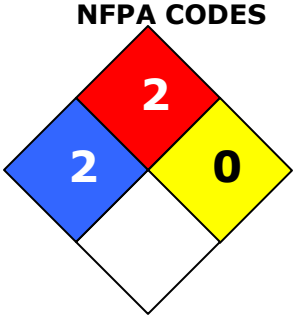
Please see the 8472 **Material Safety Data Sheet** (MSDS) for more details on transportation, storage, handling and other security guidelines.

Environmental Impact: The 8472 formulation is designed for commercial and domestic uses. It has a no volatile organic content. It contains petroleum products; avoid runoff into storm and sewer drains.

HMIS RATING

HEALTH:	**2**
FLAMMABILITY:	**2**
PHYSICAL HAZARD:	**0**
PERSONAL PROTECTION:	**0**

NFPA CODES



Health and Safety: The 8472 penetrant and lubricating oil is moderately flammable and should be kept away from flames, especially near or above the flash point of 66 °C [151 °F]. Avoid breathing in spray mist or fumes (if heated). Avoid contact with the eyes. Do not ingest. The product provides no known risk of cancer, no known risk to fetus, no known sterility risk, and has no known mutagenicity effect. Wash your hands after using.

NOTE: This product is not intended to be heated, and it should be used at room temperature. If you need to be solder or heat a lubricated part, please wipe the zone with a clean cloth to remove the lubricating oil.

Aerosol Application Instructions

Follow the procedure below for best results.

To lubricate, prevent rust, and protect large surfaces against water

1. Shake thoroughly.
2. Imbibe a clean cloth or a brush with oil.
3. Wipe or brush the surface with the cloth or brush.

To penetrate and lubricate seized or moving parts

1. Shake thoroughly.
2. Soak the area to be penetrated. Tap metal joint with hammer to speed up penetration.
3. Wait minutes to one or more hours (depending on level of rust)
4. Reapply as necessary.

To clean tar, sap, greases, adhesives, and label residues

1. Shake thoroughly.
2. Pour some oil over the surface to be cleaned.
3. Wait a few minutes to allow absorption deep into the residue.
4. Wipe with cloth.

Technical Support

Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at www.mgchemicals.com .

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