



MATERIAL SAFETY DATA SHEET

Finished Goods Catalog

NDT-SP - HI-RENDOL DEVELOPER REPLENISHER WORKING TANK SOLUTION

Manufacturer Name

FUJI NDT SYSTEMS, DIVISION OF FUJI MEDICAL SYSTEMS

SECTION 1 – COMPANY IDENTIFICATION

FUJI NDT SYSTEMS	Technical Contact:
Division of FUJI MEDICAL SYSTEMS USA	Non-Emergency No. 1-800-323-2546
850 Central Avenue	Emergency No. 1-800-424-9300
Hanover Park, IL 60133	Emergency No. 1-703-527-3887
	(Outside US & Canada)

Catalog / Sub-assembly Number: NDT-SP

SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients	CAS Number	Wt.%	OSHA PEL (mg/m3)	ACGIH (mg/m3)
Hydroquinone	123-31-9	0.5-1.5%	2	2
Sodium Sulfite	7757-83-7	2-5%	NE	NE
Sodium Metaborate	12179-04-3	1-2%	1	1
Water	7732-18-5	90-100%	NE	NE

NE=Not Established STEL=Short Term Exposure Limit C=Ceiling Limits

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance: Clear, pale yellow, aqueous liquid
Odor: None

Avoid contact with eyes, skin or clothing. Avoid breathing mist or vapor. Do not swallow. Wear chemical safety goggles & neoprene gloves. Wash thoroughly after handling. Keep container closed when not in use. Use only with adequate ventilation. May produce hazardous gases under fire conditions. During emergencies, wear equipment to protect eyes, skin and respiratory tract. Dike or absorb spills to keep material and run-off from entering sewer or waterways. Use water spray to cool containers and disperse vapors.

HMIS: Health: 1 Flammability: 0 Reactivity: 0 Protection: B
NFPA: Health: 1 Flammability: 0 Reactivity: 0 Spec. Haz.: None
Hazard Rating: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

A = Gloves B = Gloves & Goggles C = Gloves, Goggles & Apron D = Face Shield, Gloves, Goggles & Apron

Potential Health Effects:

Skin: Contact causes irritation.
Eyes: Contact causes irritation. Direct contact or vapor concentrations greater than Threshold Limiting Value (TLV) for Hydroquinone may cause permanent eye damage.

Inhalation: Irritant to respiratory tract and mucous membranes.
Ingestion: Ingestion of product may cause nausea and vomiting.
Conditions aggravated by exposure: Allergic reaction to sulfites may cause respiratory distress.

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SECTION 4 - FIRST AID MEASURES

Eye Contact: Immediately flush with COOL water for 15 minutes. Call a physician.
Skin Contact: In case of skin contact; immediately flush with cool water for 15 minutes. Call a physician.
Ingestion: In case of ingestion, seek immediate medical attention.
Inhalation: Remove victim to fresh air. Call a physician for further recommendations.

SECTION 5 - FIRE FIGHTING MEASURES

Flammable Properties

Flash Point: None
Autoignition Temperature: N/A
Explosion Limits: Lower: N/A Upper: N/A

Extinguishing Media:

Choose extinguishing media suitable for the surrounding materials, such as water spray, dry chemical, alcohol foam or carbon dioxide.

Unsuitable Extinguishing Media:

No restrictions on media based on knowledge of this material.

Fire Fighting Instructions:

Water spray should be used to cool fire exposed containers and to disperse un-ignited vapors. Use NIOSH/MSHA approved positive pressure self-contained breathing apparatus when material has ignited or becomes involved in a fire. Try to remove material containers from fire area if can be accomplished without risk to personnel. Evacuate area and fight fire from a safe distance. Call your local fire department. Wear positive pressure, breathing apparatus and protect eyes and skin. Use water to cool fire-exposed containers, to protect personnel and to disperse vapors and spills. Fire media run-off can damage the environment. Dike and collect media used to fight fire.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Small Spills:

For incidental spills and leaks, wear adequate personal protective equipment, see Section 8 (Exposure & Personal Protection). Spills should be contained by, and covered with suitable absorbent material and removed for disposal. Dispose of according to local and national regulations. Prevent spill from entering into soil, waterways and groundwater.

Large Spills:

For larger spills, requiring emergency response, neoprene boots and respiratory protection may also be required. Follow OSHA regulations and NIOSH recommendations for respiratory protection (see 29 CFR 1910.134 and NIOSH pub. 87-108) and emergency response (see 29 CFR 1910.120). Hold in properly labeled DOT-approved waste container. Dike large spills to minimize the spill area. Material can cause environmental damage.

SECTION 7 - HANDLING / STORAGE

Handling:

Avoid contact with eyes, skin or clothing. Avoid breathing mist or vapor. Do not swallow. Wear chemical safety goggles and neoprene gloves. Wash thoroughly after handling. Keep container closed when not in use. Use only with adequate ventilation. Direct contact or vapor concentrations greater than Threshold Limiting Value (TLV) may cause permanent eye damage.

** The National Toxicology Program (NTP) has found that Hydroquinone shows some evidence of carcinogenic potential in animals; however, the International Agency for Research on Cancer (IARC) has determined inconclusive evidence exists on Hydroquinone's carcinogenic potential in animals.

** Note: NTP, OSHA and IARC do not place Hydroquinone on their lists of suspected carcinogens.

Storage:

Store in a cool, dry, well-ventilated area. Keep container closed when not in use.

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SECTION 8 -EXPOSURE CONTROL AND PERSONAL PROTECTION

Ventilation:

Good general ventilation should be sufficient for most processing operations. Vent work area to ensure airborne concentrations are below the current occupational exposure limits. Ten (10) or more room air changes per hour containing a minimum of 15% fresh air will meet these requirements. Consult ASHRAE 62-1989 for further requirements.

Personal Protective Equipment:

Respiratory Protection: If used under normal operating conditions and with adequate ventilation, respiratory protection is not required. However, refer to OSHA 29 CFR 1910.134.

Skin Protection: Neoprene gloves.

Eye Protection: Chemical safety goggles

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, pale yellow, aqueous liquid

Odor: None

Change in Physical State: Boiling Point: >212 deg F

Melting Point: N/D deg F

Specific Gravity: 1.07 Water=1

Vapour Pressure: ~15 mmHg@20C

Viscosity: N/A

Solubility in Water: Complete

pH Value: 10.1

VOC (lbs/gal): 0 (Minus water)

SECTION 10 - STABILITY AND REACTIVITY

Hazardous Polymerization:

Hazardous polymerization WILL NOT occur if product is used and stored as directed. Product is stable if used and stored as directed.

Hazardous Decomposition Products:

Oxides of Sulfur; Oxides of Carbon; Oxides of Nitrogen; Ammonia

Materials and Conditions to Avoid:

Keep away from excess heat. Avoid contact with strong oxidizers, strong acids and strong bases.

SECTION 11 - TOXICOLOGICAL INFORMATION

Product Information

LD50 (oral, rat): >5000 mg/kg

Acute Overexposure:

Skin, eye, mucous membrane and respiratory tract irritant.

Chronic Overexposure:

Prolonged or repeated skin contact may cause allergic reaction and dermatitis.

Ingredient information:

No other information.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity Data: No Data Available

Chemical Fate Data: No Data Available

SECTION 13 – DISPOSAL CONSIDERATIONS

Hazardous Waste Characteristic: None

Recommendation:

Dispose of contaminated product, empty containers and materials used in cleaning up spills or leaks in a manner approved for this material. Consult appropriate federal, state and local regulatory agencies to ascertain proper disposal procedures. Discharge of processing effluent to the sewer may require a permit. DO NOT discharge effluent solutions to septic systems.

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SECTION 14 - TRANSPORTATION INFORMATION

Domestic DOT Shipping Class: Chemicals, N.O.I., Not D.O.T. regulated.

Hazard Class: None
 UN Number: None
 Packing Group: None

International Maritime Organization (IMO) Additional Shipping Codes:

MDG Code: Not Applicable
 Amdt. Code: Amdt. N/A
 HTS No.: Not Applicable

Product is labeled in accordance with US D.O.T. 49 CFR.

Passenger Aircraft Packing Instructions:

None

Further information:

For further information, please call 800-323-2546

SECTION 15 - REGULATORY INFORMATION

**Note: The ingredient information listed in this section is provided for reporting requirements as dictated by USEPA, state and local regulation. If ingredient is listed in this section but not in Section 2, then the concentration of this ingredient is below de minimis (less than 0.1%).

U.S. FEDERAL REGULATIONS:

313 = SARA Title III Section 313 (40 CFR 372 - Toxic Release Inventory)
 355 = SARA Title III Section 302 (40 CFR 355 ~ Extremely Hazardous Substance)
 302 = SARA Title III Section 304 (40 CFR 302 ~ Hazardous Substance List)
 CWA = Clean Water Act Priority Pollutants List
 CAA = Clean Air Act 1990 Hazardous Air Contaminants
 HAP = Clean Air Act - HON Rule – HAPs

Ingredients:	CAS Number	313	355	302	CWA	CAA	HAP
Hydroquinone	123-31-9	Y	Y	Y	N	Y	Y
Sodium Sulfite	7757-83-7	N	N	N	N	N	N
Sodium Metaborate	12179-04-3	N	N	N	N	N	N
Water	7732-18-5	N	N	N	N	N	N

TSCA 12(b) Export Notification

None required

TOXICITY INFORMATION:

IRC1 = IARC Group 1 Human Carcinogens List
 IRC2 = IARC Group 2 Human Carcinogens List (limited human data)
 IRC3 = IARC Group 2B Human Carcinogens List (sufficient animal data)
 NTP = NTP Known Carcinogens List
 OSHA = OSHA Known Carcinogens List

Ingredients:	CAS Number	IRC1	IRC2	IRC3	NTP	OSHA
Hydroquinone	123-31-9	N	N	N	N	N
Sodium Sulfite	757-83-7	N	N	N	N	N
Sodium Metaborate	12179-04-3	N	N	N	N	N
Water	7732-18-5	N	N	N	N	N

STATE REGULATIONS:

FL = Florida Hazardous Substance List
MI = Michigan Critical Materials List
NJ = New Jersey Right-To-Know List

MA = Massachusetts Right-To-Know List
MN = Minnesota Hazardous Substance List
PA = Pennsylvania Right-To-Know List

Ingredients:	CAS Number	PA	NJ	MN	MI	MA	FL
Hydroquinone	123-31-9	Y	Y	Y	Y	Y	Y
Sodium Sulfite	7757-83-7	N	N	N	N	N	N
Sodium Metaborate	12179-04-3	N	N	N	N	N	N
Water	7732-18-5	N	N	N	N	N	N

The following information is required by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 or Proposition 65. This regulation does not address de minimus levels; therefore, even trace amounts of chemicals included on these lists must be noted with the "Safe Harbor" wording.

WARNING: Known to the State of California to cause cancer:

****None Listed****

WARNING: Known to the State of California to cause developmental toxicity:

****None Listed****

WARNING: Known to the State of California to cause female reproductive effects

****None listed****

WARNING: Known to the State of California to cause male reproductive effects:

****None listed****

The following designation is used only for those facilities that have air permits in non-attainment areas for ozone: Non-Photochemically Reactive

SECTION 16 - OTHER INFORMATION

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.