KMR Dispersions, LLC
15425 Elm Drive
New Freedom, Pennsylvania 17349

SAFETY DATA SHEET

Date originally prepared: December 13, 2000 Revision Date: May 24, 2023

1. Product and Company Identification

PRODUCT IDENTIFIER: **40% Sodium Dispersion in Transformer Oil**

PRODUCT USE: Dechlorination agent

MANUFACTURER: KMR Dispersions, LLC
15425 Elm Drive
New Freedom PA 17349
Customer Service: 1-717-235-5469
Transportation Emergency: 1-800-424-9300 (CHEMTREC, CCN868329) in USA or
1-703-527-3887 outside USA

2. Hazards Identification

GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)
Substance and mixtures, which in contact with water, emit flammable gases (Category 1), H260
Skin corrosion (Category 1B), H314
Serious eye damage (Category 1), H318

GHS Label elements, including precautionary statements
Pictogram:

Signal Word: Danger

Hazard Statement(s)

H260	Substances and mixtures, which in contact with water, emit flammable gases.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

Precautionary Statement(s)

P223	Keep away from any possible contact with water, bacause of violent reaction and possible flash fire.
P231+P232	Handle under inert gas. Protect from moisture.
P260	Do not breathe dust or mist.
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P330+P361+P353	IF ON SKIN (or hair) Remove / Take off immediately all contaminated clothing. Rinse skin (or hair) with water/ shower.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in position comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P321	Specific treatment (see supplemental first aid instructions on this label).
P335+P334	Brush off loose particles from skin. Immerse in cool water/ wrap in wet bandages.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Cover with DRY dolomite, DRY sand, or Ansul's Met-L-X. DO NOT use water, dry chemical, carbon dioxide, halogenated or foam extinguishing agents.
P402+P404	Store in a dry place. Store in a closed container.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS:
Reacts violently with water

Indications of danger (Annex II): F (Highly Flammable), C (Corrosive)

Nature of special risk attributed to dangerous substances (Annex III): R14/15, R35

Safety advice concerning dangerous chemical substances (Annex IV): S6, S33, S7/8, S36/37/39

EMERGENCY OVERVIEW: Sodium dispersion is grey with a thick slurry consistency and no odor. Corrosive. Reacts violently with water releasing and igniting flammable hydrogen gas, perhaps explosively. Flammable solid. May catch fire if exposed to moist air, air, or oxygen. Causes severe caustic and thermal burns to eyes, skin, and respiratory tract. Fumes may cause severe respiratory tract irritation. Transformer oil may cause allergic reactions.

Primary Routes of Entry: Eye and skin contact, inhalation

Target Organs: Eyes, skin, respiratory tract

Medical Conditions Generally Recognized as Aggravated by Exposure: Persons with preexisting skin and respiratory conditions may be more susceptible to the effects of this product.

Carcinogenicity: Sodium and transformer oil are not listed in the National Toxicology Program (NTP) Annual Report on Carcinogens and not listed as OSHA carcinogens. Highly refined transformer oils are classified as IARC Group 3 (not classifiable as to its carcinogenicity).

3. Composition/Information on Ingredients

	% w/w	Synonym(s)
Sodium (CASRN: 7440-23-5)	~40%	Na
Beta Fluid (mixture w/ paraffinic distillates)	12-15%	Transformer Oil
Hyvolt II (mixture w/ petroleum distillates)	43.75-47.25%	Transformer Oil
Proprietary Additives	0.75-1.25%	

4. First Aid Measures

CAUSES SEVERE ALKALI AND THERMAL BURNS! SEND TO A PHYSICIAN IN ALL CASES.

Eyes: Immediately flush eyes with plenty of water for at least 20 minutes, holding eyelids open.

Skin: Immediately and thoroughly shake off any material on skin, remove contaminated clothing and shoes, and then flush skin with plenty of cool water for at least 20 minutes. Dispose of contaminated clothing and shoes in compliance with all local, state, and federal laws and regulations.

Ingestion: For any accidental contamination of the mouth, gargle with water and rinse mouth thoroughly for at least 15 minutes. If swallowed, do not induce vomiting. Give demulcent such as milk, olive oil, or margarine in small amounts up to 2 or 3 ounces. Never give anything by mouth to an unconscious person.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

5. Fire Fighting Measures

FLAMMABLE PROPERTIES: Water-reactive. May ignite spontaneously in moist air.
Flashpoint (Cleveland open cup): >293°F/>145°C for transformer oil
Flammable Limits: No information
Autoignition Temperature: No information

EXTINGUISHING MEDIA: Cover with DRY dolomite, DRY sand, or Ansul's Met-L-X.
DO NOT use water, dry chemical, carbon dioxide, halogenated or foam extinguishing agents.

FIRE & EXPLOSION HAZARDS: Sodium dispersion reacts violently with water releasing and igniting flammable hydrogen gas, perhaps explosively. Sodium dispersion may ignite spontaneously in moist air.

FIRE FIGHTING EQUIPMENT: Wear full protective clothing, including protective gloves and boots. For respiratory protection, wear a NIOSH approved self-contained breathing apparatus with full facepiece operated in a positive-pressure mode. Work upwind if possible. Protect against caustic fumes, smoke, and water.

6. Accidental Release Measures

PROCEDURES FOR CLEANUP: Wear recommended personal protective equipment. Be prepared to fight fire. Eliminate ignition sources. Do not flush spill to drain. Cover with DRY dolomite, DRY sand, or Ansul's Met-L-X. Scoop into a DRY metal container with additional extinguisher powder, properly label, and cover. Take immediately to a waste handling area. Only after the bulk spill has been removed, flush spill area with a large amount of water, directing caustic wastewater to a chemical drain. Otherwise collect and neutralize wastewater before disposal. Protect against caustic fumes and smoke. Handle in compliance with all local, state, and federal laws and regulations. The reportable quantity (RQ) for sodium is 10 pounds.

7. Handling and Storage

HYGIENIC PRACTICES: Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Wear recommended personal protective equipment.

STORAGE: Sodium dispersion should be stored in a cool dry location. Dispose of all reaction residues immediately. Store away from any water source including sprinkler systems. Store under vacuum or DRY nitrogen or DRY argon atmosphere in DRY equipment. Keep away from heat, sparks, and flame. Keep container tightly closed. Maintain cover gas pressure.

Class D fire extinguisher should be readily available. Floor drains should be covered and not trapped.

Do not store residues. Properly dispose of all residues immediately.

EXPLOSION HAZARD: Prolonged exposure to moist air or oxygen can create a potentially explosive condition. Maintain a DRY nitrogen or DRY argon cover gas at all times.

WORK PRACTICES: Keep away from any possible contact with water, air, moist air, oxygen, carbon dioxide, oxidizing materials, alcohols, halogens, halogenated hydrocarbons (including tetrafluoroethylene (Teflon®) and similar materials), and acids. Handle and store under vacuum or DRY nitrogen or DRY argon atmosphere in DRY equipment. Keep away from heat, sparks, and flame. Keep container tightly closed. Maintain cover gas pressure.

Use only with clean, completely enclosed systems that have been thoroughly purged with DRY nitrogen or DRY argon gas including containers, transfer lines, vessels, tanks, etc., such that the atmosphere stays below 3% oxygen. Use appropriate valves and piping. Maintain a leakproof system.

Use non-sparking tools when opening or closing containers. Bond and ground all systems when handling.

Since empty containers retain product residue, follow label warnings even after container is emptied.

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT: See Section 8.

8. Exposure Controls/Personal Protection

ENGINEERING CONTROLS: Maintain a leakproof system. Use packless valves, welded piping, and other leakproof construction. Use only with clean, completely enclosed systems that have been thoroughly purged with DRY nitrogen or DRY argon gas including containers, transfer lines, vessels, tanks, etc., such that the atmosphere stays below 3% oxygen. Handle in a DRY closed system under DRY nitrogen or DRY argon gas. Provide adequate local exhaust ventilation to minimize worker exposure. Prevent electrostatic charge buildup by using common bonding and grounding techniques.

EXPOSURE CONTROLS: None established for the product.

For oil mist, mineral: ACGIH TLV-TWA: 5 mg/m^3
ACGIH TLV-C: 10 mg/m^3 (ceiling)
OSHA PEL-TWA: 5 mg/m^3
NIOSH REL-TWA: 5 mg/m^3
NIOSH REL-ST: 10 $mg.m^3$

The IDLH for oil mist (mineral) is 2500 mg/m^3.

PERSONAL PROTECTIVE EQUIPMENT:

Normal Use & Handling: When exposure to eyes or skin is possible, wear chemical protective goggles with a faceshield attached to a hardhat equipped with fire-retardant hood or hood liner, DRY leather gloves, and fire-retardant protective clothing covering the entire body. Exposure limits have not been established for sodium dispersion. When inhalation of fumes or smoke is possible, wear a NIOSH approved self-contained breathing apparatus with a full facepiece operated in a positive-pressure mode. Showers and eye wash stations should be available in an adjacent room and should be adequately ventilated and equipped to handle caustic fumes, smoke, and water that sodium dispersion emergency first aid treatment may generate.

Emergency Handling: For firefighting, wear full protective clothing, including protective gloves and boots. For chemical spills, wear special protective clothing (vapor-protective suit with additional chemical flash fire escape protection, as specified in NFPA 1991). For respiratory protection, wear a NIOSH-approved self-contained breathing apparatus with full facepiece operated in a positive-pressure mode.

9. Physical and Chemical Properties

APPEARANCE: Grey, with a thick slurry consistency
ODOR: No odor
ODOR THRESHOLD: Not Applicable
pH: Not Applicable (non-aqueous solution)
MELTING/FREEZING POINT: Unknown
BOILING POINT: 541°C (1,006°F), calculated
FLASH POINT: 195°C (383°F), calculated
EVAPORATION RATE: Unknown
FLAMMABILITY: Unknown
UPPER AND LOWER FLAMMABILITY LIMITS: Unknown
UPPER AND LOWER EXPLOSIVE LIMITS: Unknown
VAPOR PRESSURE: < 1 mmHg at 20°C
VAPOR DENSITY: Unknown
RELATIVE DENSITY: 0.92, calculated
SOLUBILITY IN WATER: Not Applicable (water-reactive)
PARTITION COEFFICIENT: N-OCTANOL/WATER: Not Applicable (water-reactive)
AUTO-IGNITION TEMPERATURE: Unknown
DECOMPOSITION TEMPERATURE: Unknown
VISCOSITY: 220.5 cP at 25°C, shear rate = 63 s^{-1}

10. Stability and Reactivity

STABILITY (CONDITIONS TO AVOID): Stable under DRY nitrogen or DRY argon gas. Keep away from heat, sparks, and flame.

INCOMPATIBILITY (SPECIFIC MATERIALS TO AVOID): Water, air, moist air, oxygen, carbon dioxide, oxidizing materials, alcohols, halogens, halogenated hydrocarbons including tetrafluoroethylene (Teflon®) and similar materials, acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Sodium oxides (including sodium peroxide), carbon dioxide, carbon monoxide.

HAZARDOUS POLYMERIZATION: Not expected to occur.

11. Toxicological Information

Sodium dispersion causes severe caustic and thermal burns to eyes and skin. Burns may result from the reaction of sodium dispersion with the moisture of the skin to produce sodium hydroxide. If skin is dry, caustic will slowly form and cause skin to redden and chemical burns to develop; pain may be delayed and will not provide a warning.

When sodium dispersion burns and/or reacts with water, caustic fumes and/or smoke can occur that can cause severe respiratory tract irritation and a choking cough.

Transformer oil mist is irritating to the eyes, skin, and respiratory tract. Oral toxicity is low; however, transformer oil is an aspiration hazard. Ingestion of excessive amounts may result in nausea, vomiting, and diarrhea.

Transformer oil has produced tumors in animal studies and has caused allergic skin reactions.

Highly refined oils are classified as IARC Group 3 (not classifiable as to its carcinogenicity).

TOXICITY DATA: No information found for the product.

12. Ecological Information

ECOLOGICAL DATA: No environmental toxicity data for the product.

13. Disposal Considerations

WASTE DISPOSAL: Do not flush to sewer. Dispose in compliance with all local, state, and federal laws and regulations.

14. Transport Information

Note: The reportable quantity (RQ) for sodium is 10 pounds.

HAZARDOUS MATERIALS/DANGEROUS GOODS CLASSIFICATION:

Proper Shipping Name: Alkali metal dispersion
Hazard Class: 4.3
Packaging Group: I
Identification Number: UN1391
Labels: Dangerous When Wet

For shipments in DOT 4BW cylinders, please refer to DOT-E 12092.

15. Regulatory Information

TSCA: Sodium and oils are listed on the TSCA Public Inventory.

SARA 313 INFORMATION: Sodium dispersion does not contain a toxic chemical or chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372.

CERCLA/SUPERFUND: The reportable quantity (RQ) for sodium is 10 pounds.

EINECS: 231-132-9 for sodium

EUROPEAN LABEL INFORMATION:

Symbols: F, C
Indications of danger (Annex II): Highly Flammable, Corrosive
Nature of special risk attributed to dangerous substances (Annex III):

R14/15	Reacts violently with water, liberating highly flammable gases.
R35	Causes severe burns.

Safety advice concerning dangerous chemical substances (Annex IV):

S6	Keep under DRY nitrogen or DRY argon.
S33	Take precautionary measures against static discharges.
S7/8	Keep container tightly closed and dry.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.

PENNSYLVANIA: This mixture is not subject to the Pennsylvania Worker and Community Right-to-Know Act.

16. Other Information

WARNING: This is a dangerous chemical product. By following the directions and warnings provided with this product, the dangers associated with the use of this product can be greatly reduced but never entirely eliminated. Manufacturer makes no warranties, expressed or implied, with respect to this product and EXPRESSLY DISCLAIMS THE WARRANTY OF MERCHANTABILITY AND ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. Users assume all risks in handling, using or storing this product.