Safety Data Sheet

Formalin, 37-40% Neutralized with Calcium Carbonate

Section 1 - Chemical Product and Company Identification

SDS Name: Formalin, 37-40% Neutralized with Calcium Carbonate
Catalog Numbers: SO-335, F-392-2
Company Identification: Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.
10 ELECTRONICS AVENUE
DANVERS, MA 01923
For information, call: 978-739-4883
Emergency Number: 800-424-9300
For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications

H226-Flammable liquids: 3
H301-Acute toxicity, oral: 3
H311-Acute toxicity, dermal: 3
H314-Skin corrosion/irritation: 1B
H317-Sensitisation, skin: 1
H318-Serious eye damage/eye irritation: 1
H331-Acute toxicity, inhalation: 3
H335-Specific target organ toxicity, single exposure: 3
H341-Germ cell mutagenicity: 2
H350-Carcinogenicity: 1A
H370-Specific target organ toxicity, single exposure: 1
H372-Specific target organ toxicity, repeated exposure: 1
H401-Hazardous to the aquatic environment, acute hazard: 2

Pictograms or Hazard symbols and Hazard statement(s):

Signal Word: Danger

Hazard Statements:

H226-Flammable liquid and vapour
H301-Toxic if swallowed
H311-Toxic in contact with skin
H314-Causes severe skin burns and eye damage
H317-May cause an allergic skin reaction
H318-Causes serious eye damage
H331-Toxic if inhaled
H335-May cause respiratory irritation
H341-Suspected of causing genetic defects
H350-May cause cancer
H370-Causes damage to organs (target organs: respiratory system, central nervous system, and optic nerve)
H372-Causes damage to organs through prolonged or repeated exposure (target organs: kidney, liver, heart, spleen, and blood)
H401-Toxic to aquatic life

Precautionary Statements:

P201-Obtain special instructions before use.
P202-Do not handle until all safety precautions have been read and understood.
P210-Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P233-Keep container tightly closed.
P240-Ground and bond container and receiving equipment.
P241-Use explosion-proof electrical/ventilating/lighting equipment.
P242-Use non-sparking tools.
P243-Take action to prevent static discharges.
P260-Do not breathe dust/fume/gas/mist/vapours/spray.
P261-Avoid breathing dust/fume/gas/mist/vapours/spray.
P264-Wash thoroughly after handling.
P270-Do not eat, drink, or smoke when using this product.
P271-Use only outdoors or in a well-ventilated area.
P272-Contaminated work clothing should not be allowed out of the workplace.
P273-Avoid release to the environment.
P280-Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310-If swallowed: Immediately call a Poison Center/doctor.
P301+P330+P331-If swallowed: Rinse mouth. Do NOT induce vomiting.
P302+P352-If on skin: Wash with plenty of soap and water.
P303+P361+P353-If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340-If Inhaled: Remove person to fresh air and keep 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.
P308+P311-If exposed or concerned: Call a Poison Center/doctor.
P308+P313-If exposed or concerned: Get medical advice/attention.
P310-Immediately call a Poison Center/doctor.
P311-Call a Poison Center/doctor.
P312-Call a Poison Center/doctor if you feel unwell.
P314-Get medical advice/attention if you feel unwell.
P330-Rinse mouth.
P333+P313-If skin irritation or rash occurs: Get medical advice/attention.
P361+P364-Take off immediately all contaminated clothing and wash it before reuse.
P362+P364-Take off contaminated clothing and wash it before reuse.

P363-Wash contaminated clothing before reuse.
P370+P378-In case of fire: Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam to extinguish.
P403+P233-Store in a well-ventilated place. Keep container tightly closed.
P403+P235-Store in a well-ventilated place. Keep cool.
P405-Store locked up.
P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
50-00-0	Formaldehyde	37-40 v/v
67-56-1	Methyl Alcohol	10-15 v/v
471-34-1	Calcium Carbonate	0.7 w/v
7732-18-5	Water	Balance

Section 4 - First Aid Measures

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Get medical attention.

Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Get immediate medical attention.

Oral Exposure: If swallowed, get immediate medical advice. Do NOT induce vomiting. Rinse mouth with water.

Inhalation Exposure: If inhaled, remove to fresh air. Get immediate medical attention.

Section 5 - Fire Fighting Measures

General Information: Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire.

Extinguishing Media: For small fires, use dry chemical, carbon dioxide, dry sand, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.

Hazardous Combustion Products: Carbon oxides, hydrogen, formaldehyde, calcium oxides, irritating and toxic fumes and gases.

Flash Point: Not available
Autoignition Temperature: Not available
Explosion Limits, Lower: Not available
Upper: Not available
NFPA Rating: (estimated) Health: 3; Flammability: 2; Instability: 0

Note: Formaldehyde causes burns to the eyes, skin, and mucous membranes.

Note: Static discharge could act as an ignition source.

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):
Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation. Keep away from heat. Eliminate all sources of ignition. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharge.

Methods for Cleaning up: Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Do not release to the environment. Do not release to drains. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharge.

Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Wash thoroughly after handling. Use only under a chemical fume hood. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Keep in a tightly closed and non-metal container. Store in a cool, dry, and well-ventilated area. Use only non-sparking tools. Eliminate all sources of ignition. Keep away from incompatible materials. Protect from heat, open flames, and hot surfaces. Vapors heavier than air may travel considerable distance and ignite or explode.

Note: Static discharge could act as an ignition source.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Exposure Limits:

Chemical Name	ACGIH - TLV	NIOSH - IDLH	OSHA - Final PELs
Formaldehyde CAS#50-00-0	0.1 ppm TWA 0.3 ppm STEL	0.1 ppm Ceiling 0.016 ppm TWA 20 ppm IDLH	0.75 ppm TWA 2 ppm STEL
Methyl Alcohol CAS#67-56-1	200 ppm TWA 250 ppm Skin STEL	200 ppm TWA 260 mg/mg3 TWA 250 ppm STEL 325 mg/m3 STEL 6000 ppm IDLH	200 ppm TWA 260 mg/m3 TWA
Calcium Carbonate CAS#471-34-1	Not listed	10 mg/m3 TWA 5 mg/m3 TWA	Not listed

OSHA Vacated PELs: Formaldehyde: 5 ppm Ceiling; 3 ppm TWA; 10 ppm STEL
Methyl Alcohol: 200 ppm TWA; 260 mg/m3 TWA; 250 ppm STEL; 325 mg/m3 Skin STEL

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: Clear, colorless
Odor: Pungent
Vapor Pressure: Not available
Odor Threshold: Not available
Vapor Density: Not available
pH: 6.0-7.0
Relative Density: Not available
Melting point/freezing point: Not available
Solubility: Soluble in water
Boiling Point: Not available
Flash Point: Not available
Evaporation Rate: Not available
Flammability (solid, gas): Not available
Partition coefficient: n-octanol/water: Not available
Autoignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available
Specific Gravity/Density: Not available

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Note: Vapors may form explosive mixtures with air.
Conditions to Avoid: Incompatible materials, ignition sources, excess heat, flames, and sparks. Avoid freezing.
Incompatible Materials: Strong oxidizing agents, strong bases, acids, reducing agents, aniline, phenol, isocyanates, acid anhydrides, amines, peroxides, acid chlorides, alkali metals, nitriles, magnesium, aluminum, and metals.
Hazardous Decomposition Products: Carbon oxides, hydrogen, formaldehyde, calcium oxides, irritating and toxic fumes and gases.

Section 11 - Toxicological Information

CAS#50-00-0 Formaldehyde:
LD50 Oral: 500 mg/kg (rat)
LD50 Dermal: 270 mg/kg (rabbit)
LC50 Inhalation: 0.578 mg/L 4h (rat)

Carcinogenicity: Formaldehyde CAS#50-00-0 is listed by IARC (Group 1, Carcinogenic to Humans), NTP (Known Carcinogen), ACGIH (A1, Known Human Carcinogen), OSHA (Specifically Regulated Carcinogen) and California Prop. 65 as a carcinogen.

CAS#67-56-1 Methyl Alcohol: RTECS#: PC1400000
LD50 Oral: 100.1 mg/kg (expert judgement)
LD50 Dermal: 300.1 mg/kg (expert judgement)
LC50 Inhalation: 3.1 mg/L 4h vapor (expert judgement)
Investigated as a mutagen, reproductive effecter.

Draize test, rabbit, eye: 100 mg/24h Moderate Irritant.
Draize test, rabbit, skin: 100 mg/24h Moderate Irritant.

Carcinogenicity: Methyl Alcohol CAS#67-56-1 is not listed by IARC, NTP, ACGIH, or OSHA. Methyl Alcohol is listed by California Prop. 65 as a developmental carcinogen.

CAS#471-34-1 Calcium Carbonate: RTECS#: FF9335000
LD50 Oral: 6450 mg/kg (rat)
LD50 Dermal: >2000 mg/kg (rat)
LC50 Inhalation: >3 mg/L 4h (rat)

Carcinogenicity: Calcium Carbonate CAS#471-34-1 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

Information on the likely routes of exposure: Routes of entry anticipated: oral, dermal, inhalation, eye.

Epidemiology: Not available.
Teratogenicity: Teratogenic effects have occurred in experimental animals.

Reproductive Effects: Experiments have shown reproductive toxicity effects on laboratory animals.
Developmental Effects: Developmental effects have occurred in experimental animals.
Neurotoxicity: Not available.
Mutagenicity: Mutagenic effects have occurred in humans.
Specific Target Organ Toxicity, Single Exposure: Respiratory system, central nervous system, and optic nerve.
Specific Target Organ Toxicity, Repeated Exposure: Kidney, liver, heart, spleen, and blood.

Symptoms associated with exposure: Headache, dizziness, tiredness, nausea, and vomiting. Causes severe skin burns and eye damage. Risk of blindness. If ingested, severe burns of the mouth and throat, and danger of perforation of esophagus and stomach. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, and flushing.

The toxicological properties of this material have not been thoroughly investigated.

Section 12 - Ecological Information

Ecotoxicity: Do not release to the environment. Do not release to drains. Toxic to aquatic life. May cause long-term adverse effects in the aquatic environment.

CAS#50-00-0 Formaldehyde:
LC50, freshwater fish: 15 mg/L 96h (leuciscus idus)(golden orfe)
EC50, water flea: 20 mg/L 96h
EC50, water flea: 2 mg/L 48h

CAS#67-56-1 Methyl Alcohol:
LC50, freshwater fish: 15400 mg/L 96h flow-through (lepomis macrochirus)(bluegill)
LC50, freshwater fish: 19000 mg/L 96h (oncorhynchus mykiss)(rainbow trout)
EC50, water flea: 18260 mg/L 96h semi-static
ErC50, algae: 22000 mg/L 96h static (pseudokirchneriella subcapitata)(green algae)
IC50, bacteria: >1000 mg/L 3h static (activated sludge)

CAS#471-34-1 Calcium Carbonate:
LC50, freshwater fish: >100 mg/L 96h semi-static (oncorhynchus mykiss)(rainbow trout)
EC50, water flea: >100 mg/L 48h static (daphnia magna)
EC50, algae: 14 mg/L 72h static (desmodesmus subspicatus)(green algae)
EC50, bacteria: >1000 mg/L 3h static (activated sludge)

Persistence and degradability: Persistence is unlikely based on available information.
Bio-accumulative potential: Not available.
Mobility: Will likely be mobile in the environment due to its water solubility.

Section 13 - Disposal Considerations

DISPOSAL: Dispose of in accordance with all federal, state, and local regulations.

Section 14 – Transport Information

DOT
Proper Shipping name: Formaldehyde Solutions, Flammable
UN1198
PG III
Hazard class 3 (8)

Section 15 - Regulatory Information

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information

SDS Creation Date: 11/1/12
Revision #1: 11/14/14 YM
Revision #2: 11/17/16 RC
Revision #3: 10-30-18
Revision #4: 1-2-19
Revision #5: 11-1-22
Revision #6: 2-25-25

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