



SAFETY DATA SHEET

Section 1. Identification

Product Code: TAF 2FA
Product name: 2 % Formic Acid Solution Pak

Recommended Use: Laboratory Test Ink Mixture.

IDENTIFICATION OF COMPANY: The Aderhold Firm
P.O. Box 1551
Lawrenceville, Georgia 30046

CHEMTREC EMERGENCY TEL. NO: 800-424-9300

Section 2. Hazards identification

HAZARDOUS INGREDIENTS:

WARNING!

MAY CAUSE MODERATE EYE IRRITATION WITH INJURY TO CORNEA
MAY CAUSE SKIN IRRITATION
INHALATION OF MIST MAY CAUSE RESPIRATORY TRACT IRRITATION
INGESTION MAY CAUSE GASTROINTESTINAL IRRITATION

EXPECTED ROUTE OF ENTRY:

INHALATION: YES – MAY CAUSE RESPIRATORY TRACT IRRITATION
SKIN CONTACT: YES – MAY CAUSE IRRITATION
EYE CONTACT: YES – MAY CAUSE MODERATE IRRITATION W/ INJURY TO CORNEA
INGESTION: YES – MAY CAUSE GASTROINTESTINAL IRRITATION
SKIN ABSORPTION: YES

HEALTH EFFECTS OF EXPOSURE:

ANY AVAILABLE TOXICOLOGICAL DATA IS SHOWN IN SECTION II. NO OTHER INFORMATION WAS FOUND IN THE PUBLIC LITERATURE FOR ANY EFFECTS OF EXPOSURE AND NO HEALTH EVALUTION IS THUS POSSIBLE. THEREFORE, HANDLE WITH CARE AND AVOID UNNECESSARY EXPOSURES.

KNOWN EFFECTS ON OTHER ILLNESSES:

NO KNOWN EFFECTS ON OTHER ILLNESSES FOR THIS PRODUCT.

LISTED CARCINOGEN:

IARC: NOT EVALUATED
NPT: NOT LISTED
OSHA: NOT REGULATED
OTHER: NO

Section 3. Composition/information on ingredients

CAS number/other identifiers

Ingredient name	CAS number	%
Formic Acid	64-18-6	1-3
Water	7732-18-5	97-99

Section 4. First aid measures

AFTER INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

AFTER CONTACT WITH SKIN:

WASH THOROUGHLY WITH SOAP AND WATER FOR 15 MINUTES. IF SKIN IRRITATION OCCURS, SEEK MEDICAL ATTENTION. REMOVE CLOTHING AND WASH THOROUGHLY BEFORE REUSE.

AFTER CONTACT WITH EYES:

IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT LEAST 15 MINUTES, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. REMOVE CONTACT LENSES. KEEP EYELIDS APART. SEEK PROMPT MEDICAL ATTENTION.

AFTER INGESTION:

IF INGESTED AND CONSCIOUS, DRINK LARGE AMOUNTS OF WATER AND INDUCE VOMITTING. SEEK MEDICAL ASSISTANCE IMMEDIATELY. DO NOT GIVE FLUIDS OR INDUCE VOMITTING IF VICTIM IS UNCONSCIOUS.

ADVICE TO DOCTOR / TREATMENT:

NONE KNOWN.

Section 5. Fire-fighting measures

FLASHPOINT: OPEN CUP: 69° C (156.2° F)

HAZARDOUS COMBUSTION PRODUCTS: CARBON OXIDES
SMOKE

EXTINGUISHING MEDIA: ALL

SPECIAL FIRE FIGHTING PROCEDURE: SELF CONTAINED BREATHING APPARATUS PRESSURE DEMAND, FULL PROTECTIVE GEAR, COOL CONTAINERS WITH WATER TO PREVENT RUPTURE.

UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE KNOWN.

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Section 6. Accidental release measures

STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

CONTAIN SPILL. SMALL SPILLS MAY BE ABSORBED ON SUITABLE ABSORBANTS AND DISPOSED OF PROPERLY. LARGER SPILLS SHOULD BE COLLECTED AS LIQUID OR ABSORBED. NEUTRALIZE REMAINING MATERIAL WITH SODA ASH OR LIME. CLEAN-UP MAYBE ACCOMPLISHED BY FLUSHING WITH WATER TO A WASTEWATER TREATMENT SYSTEM. IF APPROPRIATE OR REMOVE CONTAMINATED SOILS, PLACE IN APPROPRIATE CONTAINERS.

Section 7. Handling and storage

ADVICE ON SAFE HANDLING:

AVOID GETTING ON SKIN OR IN EYES WHEN HANDLING PRODUCT.

FURTHER INFO ON STORAGE CONDISIONS: KEEP CONTAINERS CLOSED UNTIL READY TO USE. STORE IN COOL, DRY, WELL VENTILATED AREA.

Section 8. Exposure controls/personal protection

RESPIRATORY PROTECTION: NIOSH/MSHA APPROVED ORGANIC VAPOR MIST RESPIRATOR.

PROTECTION CLOTHING: PVC GLOVES, APRON, BOOTS, COVERALLS, AS NECESSARY TO MINIMIZE SKIN CONTACT

EYE PROTECTION: SAFETY GLASSES WITH SIDE SHIELDS AND FACE SHIELD.

OTHER PROTECTIVE EQUIPMENT: NONE KNOWN.

ADVICE ON SYSTEM DESIGN: LOCAL VENTILATION RECOMMENDED - MECHHANICAL VENTILATION MAY BE USED. KEEP AWAY FROM IGNITION SOURCE.

IDLH: NOT DETERMINED.

ACGIH – OCCUPATIONAL EXPOSURE LIMITS – 15 MINUTES STEL

Formic acid 10 ppm STEL

ACGIH – OCCUPATIONAL EXPOSURE LIMITS – 8 HOURS TWA's

Formic acid 5 ppm TWA

OSHA – VACATED PEL's – TIME WEIGHTED AVERAGES

Formic acid 5 ppm TWA; 9mg/m³ TWA

PROTECTIVE MEASURES DURING MAINTENANCE

ELIMINATE IGNITION SOURCE. COMPLETELY ISOLATE AND CLEAN ALL EQUIPMENT AND PIPING. KEEP AREA CLEAN. PRODUCT WILL BURN

Section 9. Physical and chemical properties

FORM:	AQUEOUS SOLUTION
COLOR:	CLEAR
ODOR:	PUNGENT
pH:	2.3 (2% Solution)
SOLUBILITY IN WATER	SOLUBLE
DENSITY:	HEAVIER THAN AIR
BOILING POINT:	100° C value is for water
EVAPORATION RATE:	SLOWER THAN BUTYL ACETATE
FREEZING POINT:	0° C VALUE IS FOR WATER

Section 10. Stability and reactivity

CHEMICAL STABILITY: STORAGE CONDITIONS	STABLE UNDER NORMAL/RECOMMENDED HANDLING &
HAZARDOUS POLYMERIZATION STORAGE CONDITIONS	WILL NOT OCCUR UNDER NORMAL/RECOMMENDED HANDLING &
CONDITIONS TO AVOID:	STRONG OXIDIZING AGENTS, ALKALIES & SULFURIC ACID

Section 11. Toxicological information

PRODUCT INFORMATION:	
ACUTE ORAL TOXICITY:	LD50 729 mg/kg (mouse) Calculated value for the mixture
ACUTE DERMAL TOXICITY:	LD50 .566 mg/kg (rabbit) Skin necrosis, organ congestion
INHALATION:	LT50 SAT VAPOR (rat) eye nose irritation, resp. distress, lung congestion, hemorrhage.
EYE IRRITATION	.005ml (rabbit) severe corneal opacity and eyelid injury
MUTAGENICITY/GENOTOXICITY INFO:	NO TESTS HAVE BEEN CARRIED OUT
COMPONENT:	FORMIC ACID – MUTAGENIC IN E. COLI AND DROSOPHILA DOMINANT LETHAL TEST. NEGATIVE IN B. SUBTILIS TEST.

Section 12. Ecological information

PRODUCT INFORMATION: NO DATA AVAILABLE
BIODEGRADATION: NO DATA AVAILABLE
FISH TOXICITY: NO DATA AVAILABLE
BACTERIAL TOXICITY: NO DATA AVAILABLE
CHEMICAL OXYGEN DEMAND (COD): NOT DETERMINED

Section 13. Disposal considerations

WASTE DISPOSAL INFORMATION:
INCINERATION IN ACCORDANCE WITH APPLICABLE REGULATIONS IS THE RECOMMENDED DISPOSAL METHOD. LANDFILLING IN A PERMITTED SOLID OR HAZARDOUS WASTE FACILITY IS A SUITABLE ALTERNATIVE AFTER SOLIDIFICATION TO REMOVE FREE LIQUIDS. DISPOSAL SHOULD BE IN ACCORDANCE WITH APPLICABLE FEDERAL, PROVINCIAL AND LOCAL REGULATIONS.

Section 14. Transport information

DOT NOT RESTRICTED
IATA NOT RESTRICTED
IMDG NOT RESTRICTED

Section 15. Regulatory information

TACA STATUS:
ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON TSCA INVENTORY.

CEPA:
ALL COMPONENTS OF THIS PRODUCT COMPLY WITH SUBSTANCE NOTIFICATION REQUIREMENTS UNDER CEPA.

CHEMICAL INVENTORIES:
U.S. TSCA: THE COMPONENTS OF THIS PRODUCT ARE INCLUDED ON TH TSCA INVENTORY

WHMIS CLASSIFICATION
D2B – OTHER TOXIC EFFECTS/TOXIC

CLEAN WATER ACT:
CONTAINS NO KNOW PRIORITY POLLUTANTS AT CONCENTRATIONS GREATER THAN 0.1%.

VOLATILE ORGANIC COMPOUNDS VOC:
CONTENT VOC (WEIGHT-%):

FDA: PERMITTED FOR USE PER SECTION: NONE
THIS PRODUCT IS NOT REGISTERED WITH THE FDA.

Section 16. Other information

HISTORY:

Date of issue/Date of revision: 9/17/2015

Date of previous issue: None

Version: 1.0

HMIS:

HEALTH:	1
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FLAMMABILITY:	0
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REACTIVITY:	1
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PERSONAL PROTECTION: B Safety Glasses, Gloves.

OTHER PRECAUTIONS:

KEEP FROM FREEZING.

LABEL INFORMATION:

ATTENTION!

IN ACCORDANCE WITH GOOD PRACTICES OF PERSONAL CLEANLINESS AND HYGIENE,
HANDLE WITH DUE CARE AND AVOID UNNECESSARY CONTACT WITH THIS PRODUCT.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications.