

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: DC Solution

SYNONYMS: DC Fixative solution

CATALOG CODES: VJF

MANUFACTURER: Volu-Sol

ADDRESS: 5095 West 2100 South
Salt Lake City, UT 84120

EMERGENCY PHONE: (800) 535-5053

OTHER CALLS: (801) 974-9474

FAX: (801) 974-9553

CHEMICAL FAMILY: -

CHEMICAL FORMULA: -

PREPARED BY: Volu-Sol

RECOMMENDED USE: Tissue processing

RESTRICTIONS ON USE: Use as recommended

SECTION 2: HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW:

GHS Classification:

Flammable Liquids	(Category 2)
Skin Irritation	(Category 2)
Eye Irritation	(Category 2A)
Specific target organ toxicity	(Category 1)
Single Exposure – respiratory, lungs, kidneys	
Specific target organ toxicity	(Category 2)
Repeated Exposure – respiratory, CNS, liver, blood	

GHS LABEL ELEMENTS:

Pictogram:



Signal Word:

Danger

Hazard Statement(s):

H225 Highly flammable liquid and vapour

H315 Causes skin irritation

H319 Causes serious eye irritation

H370 Causes damage to organs

H373 May cause damage to organs through prolonged or repeated exposure

Precautionary Statement(s):

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking

P233 Keep container tightly closed

P240 Ground/bond container and receiving equipment

P241 Use explosion-proof electrical/ ventilating/ lighting equipment

P242 Use only non-sparking tools

P243 Take precautionary measures against static discharge

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray

P264 Wash skin thoroughly after handling

P270 Do not eat, drink or smoke when using this product

P280 Wear protective gloves/ eye protection/ face protection

P302+P352 IF ON SKIN: Wash with plenty of soap and water

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P307+P311 IF exposed: Call a POISON CENTER or doctor/physician

P314 Get medical advice/attention if you feel unwell

P321 Specific treatment (see supplemental first aid information on this label)

P332+P313 If skin irritation occurs: Get medical advice/attention

P337+P313 If eye irritation persists: Get medical advice/attention

P362 Take off contaminated clothing and wash before reuse

P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction

P403+P235 Store in a well-ventilated place. Keep cool

P405 Store locked up

P501 Dispose of contents/container to an approved waste disposal plant

OTHER HAZARDS: -

HMIS Classification:

Health hazard: 1

Chronic health hazard: -

Flammability: 3

Physical hazards: 0

NFPA Rating:

Health hazard: 1

Fire: 3

Reactivity Hazard: 0

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO. EC-NO. Index-NO.
Ethyl Alcohol (20-40%)	64-17-5 200-578-6 603-002-00-5
Octane (20-40%)	111-65-9 203-892-1 601-009-00-8
2-Propanol (20-40%)	67-63-0 200-661-7 603-117-00-0

SECTION 4: FIRST AID MEASURES

INHALATION: Vapor Harmful. Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell

INGESTION: Poison. May be fatal or cause blindness if swallowed. If exposed: Call a doctor. Cannot be made nonpoisonous. Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention

SKIN: If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention

EYE: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR:

Percentage by Volume

Upper: -%

Lower: -%

FLASH POINT: -

AUTOIGNITION TEMPERATURE: -

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, alcohol foam. Use water spray to cool fire-exposed containers and disperse vapors

FIRE FIGHTING PROCEDURES: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode

FIRE AND EXPLOSION HAZARDS: Carbon monoxide and unidentified organic compounds may be formed during combustion. Vapors can travel distances to ignition source and flash back. Cool fire exposed containers with water. Fine mist or spray may be flammable at temperatures below the flash point. When heated above the flash point this material emits flammable vapors which, when mixed with air, can burn or be explosive

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Use personal protective equipment. Avoid breathing vapours, mist or gas. Eliminate all sources of ignition. Ensure adequate ventilation.

Evacuate personnel to safe areas. Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Do not breathe vapors. Do not eat, drink or smoke when using this product. Keep away from heat, sparks, open flames, hot surfaces. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Store locked up. Store in a well-ventilated place. Keep cool. Store away from sources of ignition, heat and open flame

INCOMPATIBILITIES: -

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS: Reported in a time-weighted average (TWA)

Component	CAS-No.	OSHA		ACGIH	
		ppm	mg/m ³	ppm	mg/m ³
Ethyl Alcohol	64-17-5	1000		1000	
		PEL		TLV	
Octane	111-65-9	500		300	983
		PEL		TLV	TLV
2-Propanol	67-63-0	400		400	
		PEL		TLV	

VENTILATION SYSTEM: Local and/or general exhaust is recommended to keep exposure below limits. Local exhaust ventilation is preferred for control of the emissions at its source, preventing dispersion into the general work area. Please refer to the ACGIH document, *Industrial Ventilation: A Manual of Recommended Practices*, for details

PERSONAL RESPIRATORS: If exposure limit is exceeded and engineering controls are not feasible, a half-face organic vapour respirator may be worn for up to ten times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier; whichever is lowest. A full-face piece organic vapour respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face, positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres

SKIN PROTECTION: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Use proper glove removal technique to avoid skin contact with this product. Wash and dry hands

EYE PROTECTION: Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: liquid, colorless
ODOR: -
SOLUBILITY: -
pH: -
BOILING POINT: -
MELTING POINT: -
VAPOR PRESSURE: -
SPECIFIC GRAVITY: -
MOLECULAR WEIGHT: -
DENSITY: -
VISCOSITY: -
REFRACTIVE INDEX: -

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under recommended conditions of use and storage

CONDITIONS TO AVOID: No data available

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: No data available

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

Acute Toxicity: No data available
Skin/Eye Irritation: No data available
Carcinogenicity: IARC: Not listed as a carcinogen

NTP: Not listed as a carcinogen

OSHA: Not listed as a carcinogen

ROUTES OF ENTRY: Inhalation/Ingestion/Skin

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:

Toxicity: Very toxic to aquatic life

Persistence and degradability: No data available

Mobility in soil: No data available

PBT/vPvB Results: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material

SECTION 14: TRANSPORT INFORMATION

US DOT	IATA	IMDG/IMO
Shipping Name: Alcohols, n.o.s. (ethanol, isopropanol)	Shipping Name: Alcohols, n.o.s. (ethanol, isopropanol)	Shipping Name: Alcohols, n.o.s. (ethanol, isopropanol)
Hazard Class: 3	Hazard Class: 3	Hazard Class: 3
UN Number: 1170	UN Number: 1170	UN Number: 1170
Packing Group: II	Packing Group: II	Packing Group: II

SECTION 15: REGULATORY INFORMATION

SARA 302	-
SARA 313	67-63-0
SARA 311/312 Hazards	Fire Hazard, Acute Health Hazard, Chronic Health Hazard
State	Right to know lists: MA: 64-17-5, 67-63-0, 111-65-9 PA: 64-17-5, 67-63-0, 111-65-9 NJ: 64-17-5, 67-63-0, 111-65-9 California Prop. 65 Components: -

SECTION 16: OTHER INFORMATION

Disclaimer: The information is provided without any representation or warranty, express or implied, regarding the accuracy or correctness. The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, use, or disposal of the product.