SAFETY DATA SHEET

GHEMSERVIGE

1. Identification

Product identifier	Carbofuranphenol-3-keto Solution			
Other means of identification	MFT-11405FM1			
Item	WE1-11403FW1			
Recommended use	For Laboratory Use Only			
Recommended restrictions	None known.			
Manufacturer/Importer/Supplier/Distributor information				
Manufacturer				
Company name	Chem Service, Inc.			
Address 660 Tower Lane				
	West Chester, PA 19380			
	United States			
Telephone	Toll Free	800-452-9994		
-	Direct	610-692-3026		
Website	www.chemservice.com			
E-mail	info@chemservice.com			
Emergency phone number	Chemtrec US	800-424-9300		
	Chemtrec outside US	+1 703-527-3887		

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Acute toxicity, oral	Category 3
	Acute toxicity, dermal	Category 3
	Acute toxicity, inhalation	Category 3
	Serious eye damage/eye irritation	Category 2A
	Reproductive toxicity	Category 1
	Specific target organ toxicity, single exposure	Category 1
	Specific target organ toxicity, repeated exposure	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	

Danger

Label elements

Signal word Hazard statement

Highly flammable liquid and vapor. Toxic if swallowed. Toxic in contact with skin. Causes serious eye irritation. Toxic if inhaled. May damage fertility or the unborn child. Causes damage to organs. Causes damage to organs through prolonged or repeated exposure.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement Prevention

Response	If swallowed: Immediately call a poison center/doctor. Rinse mouth. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor. If eye irritation persists: Get medical advice/attention. Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.
Storage	Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.
Supplemental information	99.99% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 99.99% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Vlethanol		67-56-1	99.99
Carbofuranphenol-3-keto		17781-16-7	0.01

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a POISON CENTER or doctor/physician.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention if you feel unwell. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. If swallowed, induce vomiting immediately as directed by medical personnel. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Most important symptoms/effects, acute and delayed	Headache. Dizziness. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off immediately all contaminated clothing. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.
5. Fire-fighting measures	
Suitable extinguishing media	Water fog. Alcohol resistant foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.	
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.	
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.	
General fire hazards	Highly flammable liquid and vapor.	
6. Accidental release meas	sures	
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant	

Methods and materials for containment and cleaning up

orEliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keepg upcombustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures
against static discharge. Use only non-sparking tools.

spillages cannot be contained. For personal protection, see section 8 of the SDS.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

Conditions for safe storage, including any incompatibilities including and grounding techniques. Eliminate sources of ignition. Avoid **including any incompatibilities including any incompatibilities including and grounding techniques**. Eliminate sources of ignition. Avoid **including any incompatibilities including and grounding techniques**. Eliminate sources of ignition. Avoid **including any incompatibilities including and grounding techniques**. Eliminate sources of ignition. Avoid **including any including techniques**. Eliminate sources of ignition. Avoid **including any including techniques**. Eliminate sources of ignition. Avoid **including any including techniques**. Eliminate sources of ignition. Avoid **including techniques**. Eliminate sources of ignition. Avoid **i**

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

		PEL	26	0 mg/m3	
Methanol (CAS 67-56-1)				0 mg/ms 0 ppm	
US. ACGIH Threshold Lim	it Values				
Components		Туре	Va	lue	
Methanol (CAS 67-56-1)		STEL	25	0 ppm	
		TWA	20	0 ppm	
US. NIOSH: Pocket Guide Components	to Chemical Haz	ards Type	Va	lue	
Methanol (CAS 67-56-1)		STEL 325 mg/m3		5 mg/m3	
		T 10/0		0 ppm	
		TWA		0 mg/m3 0 ppm	
ological limit values			20		
ACGIH Biological Exposu	re Indices				
Components	Value	Determinant	Specimen	Sampling Time	
Methanol (CAS 67-56-1)	15 mg/l	Methanol	Urine	*	
* - For sampling details, plea	ase see the sourc	e document.			
posure guidelines					
US - California OELs: Skin	•				
Methanol (CAS 67-56-1			n be absorbed throu	igh the skin.	
US - Minnesota Haz Subs: Methanol (CAS 67-56-1	-	••	n designation applie		
US - Tennessee OELs: Ski		OK	in designation applie		
Methanol (CAS 67-56-1	·		n be absorbed throu	igh the skin.	
US ACGIH Threshold Limi		-			
Methanol (CAS 67-56-1 US NIOSH Pocket Guide to			n be absorbed throu	igh the skin.	
Methanol (CAS 67-56-1		-	n be absorbed throu	ah the skin.	
propriate engineering				Good general ventilation (typically 10 air	
ntrols	applicable, us maintain airbo established, n	e process enclosures orne levels below reco	 local exhaust ventommended exposure ls to an acceptable 	ould be matched to conditions. If ilation, or other engineering controls to e limits. If exposure limits have not been level. Provide eyewash station. Eye wash	
lividual protection measure	-				
Eye/face protection	Chemical resp	pirator with organic va	por cartridge and fu	III facepiece.	
Skin protection Hand protection	Wear appropr	iate chemical resista	nt gloves.		
	Wear appropr	iate chemical resista	nt clothing. Use of a	n impervious apron is recommended.	
Other	Chemical respirator with organic vapor cartridge and full facepiece.				
Other Respiratory protection	Chemical resp	pirator with organic va	Wear appropriate thermal protective clothing, when necessary.		
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Appearance	
Physical state	Liquid.
Form	Liquid.
Color	Not available
Odor	Not available

Odor threshold	Not available.
рН	Not available.
Melting point/freezing point	-144.04 °F (-97.8 °C) estimated
Initial boiling point and boiling range	148.46 °F (64.7 °C) estimated
Flash point	53.6 °F (12.0 °C) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or exp	losive limits
Flammability limit - lower (%)	7.3 % estimated
Flammability limit - upper (%)	36 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	169.3 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	867.2 °F (464 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	0.7865 g/cm3 estimated
Explosive properties	Not explosive.
Flammability class	Flammable IB estimated
Oxidizing properties	Not oxidizing.
Percent volatile	99.99 % estimated
Specific gravity	0.79 estimated
VOC	99.99 % estimated
10. Stability and reactivity	
Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.
11. Toxicological informat	ion
Information on likely routes of e	xposure
	Taxis (Cickeled Maximum demonstrate annual buildedation Maximum during the second

Inhalation	Toxic if inhaled. May cause damage to organs by inhalation. May cause damage to organs through prolonged or repeated exposure by inhalation.
Skin contact	Toxic in contact with skin.
Eye contact	Causes serious eye irritation.
Ingestion	Toxic if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics	Headache. Dizziness. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.		
Information on toxicological effe	ects		
Acute toxicity	Toxic if inhaled. Toxic in contact with skin. Toxic if swallowed.		
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.		
Serious eye damage/eye irritation	Causes serious eye irritation.		
Respiratory or skin sensitizatior	1		
Respiratory sensitization	Not a respiratory sensitizer.		
Skin sensitization	This product is not expected to cause skin sensitization.		
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.		
Carcinogenicity	Not classifiable as to carcinogenicity to humans.		
IARC Monographs. Overall I	Evaluation of Carcinogenicity		
Not listed.			
	d Substances (29 CFR 1910.1001-1050)		
Not regulated.	NTD) Denert en Consineren		
Not listed.	ogram (NTP) Report on Carcinogens		
Reproductive toxicity	May damage fertility or the unborn child.		
Specific target organ toxicity -	Causes damage to organs.		
single exposure	Causes damage to organs.		
Specific target organ toxicity - repeated exposure	Causes damage to organs through prolonged or repeated exposure.		
Aspiration hazard	Not an aspiration hazard.		
Chronic effects	Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.		
12 Ecological information			

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.		
Components		Species	Test Results
Methanol (CAS 67-56-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) >100 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

Bioaccumulative potential	
Partition coefficient n-oct	tanol / water (log Kow)
Methanol	-0.77
Mobility in soil	No data available.
Other adverse effects	The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT	
UN number	UN1230
UN proper shipping name	Methanol, solution (Methanol RQ = 5001 LBS)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II
	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB2, T7, TP2
Packaging exceptions	150
Packaging non bulk	202
Packaging bulk	242
ΙΑΤΑ	
UN number	UN1230
UN proper shipping name	Methanol solution (Methanol)
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1(PGI, II)
Packing group	
Environmental hazards	No.
ERG Code	3L
	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo	Allowed with restrictions.
aircraft	
Cargo aircraft only	Allowed with restrictions.
IMDG	
UN number	UN1230
UN proper shipping name	METHANOL SOLUTION (Methanol)
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1(PGI, II)
Packing group	
Environmental hazards	
Marine pollutant	No.
EmS	F-E. S-D
	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to	Not established.
Annex II of MARPOL 73/78 and the IBC Code	
DOT	





15. Regulatory information

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US federal regulations	This product is a "Haza Standard, 29 CFR 191		lefined by the OSHA Hazard	Communication
TSCA Section 12(b) Export	Notification (40 CFR 70	7, Subpt. D)		
Not regulated.				
CERCLA Hazardous Subst	ance List (40 CFR 302.4)			
Methanol (CAS 67-56-1)		Listed.		
SARA 304 Emergency relea	ase notification			
Not regulated.	ad Subatanaaa (20 CER	4040 4004 4050)		
OSHA Specifically Regulate Not regulated.	eu Substances (25 CFR	1910.1001-1050)		
·	acutherization Act of 10			
Superfund Amendments and R Hazard categories	Immediate Hazard - Ye			
Hazaru categories	Delayed Hazard - Yes			
	Fire Hazard - Yes			
	Pressure Hazard - No Reactivity Hazard - No			
SARA 302 Extremely hazar	-			
Not listed.	uous substance			
SARA 311/312 Hazardous	No			
chemical	NO			
SARA 313 (TRI reporting)				
Chemical name		CAS number	% by wt.	
Methanol		67-56-1	99.99	
Other federal regulations				
Clean Air Act (CAA) Sectio	n 112 Hazardous Air Pol	llutants (HAPs) List		
Methanol (CAS 67-56-1)				
Clean Air Act (CAA) Sectio	n 112(r) Accidental Rele	ase Prevention (40 C	FR 68.130)	
Not regulated.				
Safe Drinking Water Act (SDWA)	Not regulated.			
US state regulations	WARNING: This produce defects or other reprod		I known to the State of Califo	ornia to cause birth
US - California Propos	ition 65 - CRT: Listed da	te/Developmental to:	xin	
subd. (a))	ate Chemicals List. Safe	Listed: March r Consumer Product	n 16, 2012 s Regulations (Cal. Code R	legs, tit. 22, 69502.3,
Methanol (CAS 67-	56-1)			
International Inventories				
Country(s) or region	Inventory name			On inventory (yes/no)*
Australia	Australian Inventory of	Chemical Substances	s (AICS)	No
Canada	Domestic Substances	List (DSL)		No
Canada	Non-Domestic Substar	nces List (NDSL)		No
China	Inventory of Existing C	hemical Substances ir	n China (IECSC)	No
Europe	European Inventory of Substances (EINECS)		Chemical	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	09-23-2017
Version #	01
NFPA ratings	Health: 4 Flammability: 3 Instability: 0
Disclaimer	The above information is believed to be correct on the date it was last revised and must not be considered all inclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. OSHA regulations require that if other hazards become evident, an upgraded SDS must be made available to the employee within three months. RESPONSIBILITY for updates lies with the employer and not with CHEM SERVICE, Inc.
	Persons not specifically and properly trained should not handle this chemical or its container. This product is furnished FOR LABORATORY USE ONLY! Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticide products, food additives or as household chemicals.
	This Safety Data Sheet (SDS) is intended only for use with Chem Service, Inc. products and should not be relied on for use with materials from any other supplier even if the chemical name(s) on the product are identical! Whenever using an SDS for a solution or mixture the user should refer to the SDS for every component of the solution or mixture. Chem Service warrants that this SDS is based upon the most current information available to Chem Service at the time it was last revised. THIS WARRANTY IS EXCLUSIVE, AND CHEM SERVICE, INC. MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. This SDS is provided gratis and CHEM SERVICE, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR CONTINGENT DAMAGES.
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