METHYL FORMAL

Common Synonyms methylorial met							
White of protocols and produce output agencies. Fire FLAMMALE. Initiating gases may be produced when heated. Containers may explode in first. Water may be infective on first. Containers may explode in first. Containers may explode in first. Containers may explode in an encode area. Exinguish with dry chemicals, foam or carbon dioxide. Water may be infective on first. Containers with water. Exposure Call for medical aid. Water may be infective on first. Containers with water. Exposure Call for medical aid. Water may be associated area. Hermit if instand. Water may be associated area. Hermit if instand. Work witchin to fresh ari. If threating has subped, the containers with water. EXPOSURE Call for medical aid. Water may be associated area with particip of water. First Matched areas areas with particip of water. First Matched Areas areas with particip of water. First Matched Areas a	Common Synonyms imethoxymethane imethyl formal ormaldehyde dimethylacet lethylal lethylane dimethyl ether	Liquid Mixes with water.	Colorless Mild sweet odor . Flammable, irritating vapor is produced.				
Fire FLAMMABLE Initialing gases may be produced when heated. Clashback along vapor rain use occur. Vapor may explode if ignited in an enclosed area. Extinguish with dry cherricals, foam or carbon dioxide. Water may be ineffective on fire. Cool exposed containers with water. Exposure Call for medical aid. VAPOR Initiality to eyes, nose and throat. Harmful if inhaled. Move vicinit of resh air. If breating has stopped, give artificial respiration. If intenting to skin and eyes. Harmful if shallowed. Rerowe containnisted clothing and shoes. Fush a flected areas with pierty of water. If is NELLOND Initiating to skin and eyes. Harmful if shallowed in MCONSICIOLOS OF NAVING CON- VULSIONS, do nothing except keep vicitim warm. Water Pollution Effect of bw concentrations on aquatic life is unknown. May be diagerous if if enters water intakes. Notify operators of nearby water intakes. Notify operators of nearby water intakes. Notify contained widthe officials. Notify operators of nearby water intakes. Notify contained water intakes. 1. CORRECTIVE RESPONSE ACTIONS Dilution C. CHEMICAL DESIGNATIONS Notify contained widthe officials. Notify operators of nearby water intakes. Notify contained sharer and Notify contained widthe officials. Notify operators of nearby water intakes. 2. Second Protective Equipment: Self-contained breating apparatus or all-purpose canister mask notify operators of nearby magnetism. 3. Content Control Conterol NearControl Conterol Control Control Control Co	Keep people awa Shut off ignition s Notify local health	r. ources. Call fire departmen and pollution control agenc	it. iies.				
Exposure Call for medical aid. WPOR Initiating to syste, nose and thost. Hermful if inbaied. Move victim for sets air. It breathing has stopped, give artificial respiration. It breathing has stopped, give artificial respiration. It breathing is difficult, give oxygen. LIQUD Writating to skin and eyes. Hermful if swallowed. Remove containrited obthing and shoes. Flash affected areas with periny of water. If IF SWALLOWED and victim is CNOSICIOUS (Naving victim drink water or with and have victim induce vormiting. IF SWALLOWED and victim is UNCONSCIOUS (Naving victim drink water or with and have victim induce vormiting. IF SWALLOWED and victim is UNCONSCIOUS (Naving victim drink water or with and have victim induce vormiting. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CON- VUSIONS, do nothing except keep victim warm. Mybe drangerous if I enters water intakes. Notify colar beath and widler officials. Notify colar beathing system colar beathing appartus or all-purpose canister mask: nuber glowes: chertical bafety goggles: impervious apron and boots. 12 Personal Protective Equipment: Self-contined breating appartus or all-purpose canister mask: nuber glowes: chertical bafety goggles: impervious appartus or all-purpose canister mask: nuber glow	Fire FLA Irrite Con Flas Vap Exti Wal Coc	FLAMMABLE Irritating gases may be produced when heated. Containers may explode in fire. Flashback along vapor trail may occur. Vapor may explode if ignited in an enclosed area. Extinguish with dry chemicals, foam or carbon dioxide. Water may be ineffective on fire. Cool exposed containers with water.					
Water Pollution Effect of low concentrations on aquatic life is unknown. May be dangerous if it enters water intakes. Notify operators of nearby water intakes. Notify operators of nearby water intakes. Notify operators of nearby water intakes. Dilute and disperse Stop discharge 2. CHEMICAL DESIGNATIONS Dilute and disperse Stop discharge 2. If G Compatibility Group: 41; Ether 2. Formula: CH ₄ (OCH ₃): 3. MOVID Designation: 3.1/1234 4. DOT ID No: 1234 5. CAS Registry No: 109-87-5 2. A MERG Guide No: 127 3. Tosticity Equipment: Self-contained breathing apparatus or all-purpose canister mask; rubber gloves; chemical safety goggles; impervious apron and boots. 3.7 Personal Protective Equipment: Self-contained breathing apparatus or all-purpose canister mask; rubber gloves; chemical safety goggles; impervious apron and boots. 3.7 Standard Industrial Trade Classification: Splot causes ystem. Liquid causes irritation of respiratory system and depression of central nervous system. Liquid causes irritation of respiratory system and depression of central nervous system. Liquid causes irritation of eyes and will irritate skin if allowed to remain. Ingestion causes depression of central nervous system. 3.7 Teatment of Exposure: INHALATION: remove victim from contaminated area and administer afficial respiration and oxygen if necessary. EYES: fibush with pleiny of water; get medical attention. SKIN: Hush with plenty of water. INGESTION: induce vomiting: administer gestric lavage and saline cathartics; subsequent treatment is symptomatic and supp	Exposure Call VAF Irrite Harn Mov If br If br If br Irrite Harn Fiss IF II IF S or n IF S VUL	Call for medical aid. VAPOR Irritating to eyes, nose and throat. Harmful if inhaled. Move vicitin to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. LIQUID Irritating to skin and eyes. Harmful if swallowed. Remove contaminated clothing and shoes. Flush affected areas with plenty of water. IF N EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CON- VULSIONS, do nothing except keep victim warn.					
 CORRECTIVE RESPONSE ACTIONS Dilute and disperse Stop discharge C CHEMICAL DESIGNATIONS C G Compatibility Group: 41; Ether C Formula: CH4(OCH): MOUN Designation: 3.1/1234 DOT DNo: 1234 DOT DNo: 1234 C G S Registry No: 109-87-5 MAERG Guide No: 127 Standard Industrial Trade Classification: 51616 Standard Industrial Trade Classification: 51616 Standard Industrial Trade Classification: 51616 Symptoms Following Exposure: Inhalation causes irritation of respiratory system and depression of central nervous system. Liquid causes irritation of eyes and will irritate skin if allowed to remain. Ingestion causes depression of central nervous system. Treatment of Exposure: INHALATION: remove vicitm from contaminated area and administer artificial respiration and oxygen if necessary. EVES: flush with plenty of water; get medical attention. SKIN: flush with plenty of water. INGESTION: induce vomiting: administer gastric lavage and saline cathartics; subsequent treatment is symptomatic and supportive. TU-VTWA: 1,000 ppm Toxicity by Ingestion: Carenty in tot available. Chronic Toxicity: Liver and kidney injury may follow high exposures. Vapor (Gas) Irritant Characteristics: Vapors cause a slight smarting of the eyes or respiratory system if present in high concentrations. The effect is temporary. Liquid or Solid Characteristics: Vapors cause as a slight smarting of the eyes or respiratory system if present in high concentrations. The effect is temporary. Liquid or Solid Characteristics: Vapors cause as a slight smarting of the eyes or respiratory system if present in high concentrations. The effect is temporary. Sub Vapor (Gas) Irritant Characteristics: Vapors cause as a slight smarting of the eyes or respiratory system if present in high concentrations. The effect is tempo	Water Effe May Pollution Noti	t of low concentrations on be dangerous if it enters w / local health and wildlife of / operators of nearby wate	aquatic life is unknown. ater intakes. fficials. r intakes.				
	 Personal Protective rubber gloves; ch Symptoms Following central nervous s ingestion causes Treatment of Exposi- satine cathartics; TLV-TWA: 1,000 ppr 15 TLV-STEL: Not listed TLV-Ceiling: Not liste TLV-Ceiling: Not liste Toxicity by Ingastior Toxicity by Indiation Chronic Toxicity: Liv Toyor (Gas) Irritant system if present TL2 Odor Threshold: Cu Tla Osha PEL-TWA: 1,100 GMA Socki PEL-TWA: 1,114 GMA PEL-TWA: 1,15 SHA PEL-TWA: 1,14 SHA PEL-TWA: 1,15 SHA PEL-TWA: 1,15 TA AEGL: Not liste 	3. HEALTH I squipment: Self-contained mical safety goggles; impe Exposure: Inhalation caus stem. Liquid causes irritat lepression of central nervo re: INHALATION: remove rgen if necessary. EYES: entry of water. INGESTION subsequent treatment is syn car and kidney injury may foll characteristics: Vapors can high concentrations. The cteristics: Vapors can n high concentrations. The cteristics: Vapors can n high concentrations. The cteristics: Minimum hazard of reddening of the skin. rently not available n 00 ppm t listed.	2.4 DOT ID No. 7 2.5 CAS Registry 2.5 CAS Registry 2.6 NAERG Guide 2.7 Standard Indu 51616 HAZARDS Ibreathing apparatus or a rvious apron and boots. ses irritation of respiratou is system. victim from contaminater flush with plenty of wate i. induce vomiting: admir mptomatic and supportivity why low high exposures. use a slight smarting of the seffect is temporary. d. If spilled on clothing a	234 No.: 109-87-5 No: 127 Istrial Trade Classification: all-purpose canister mask; ry system and depression of te skin if allowed to remain. d area and administer artificial r; get medical attention. ister gastric lavage and e. the eyes or respiratory and allowed to remain, may			

4. FIRE HAZARDS	7. SHIPPING INFORMATION
 4.1 Flash Point: 0°F O.C. 4.2 Flammable Limits in Air: 1.6%-17.6% 4.3 Fire Extinguishing Agents: Dry 	 7.1 Grades of Purity: 97+% 7.2 Storage Temperature: Ambient 7.3 Inert Atmosphere: No requirement
chemical, foam, carbon dioxide 4.4 Fire Extinguishing Agents Not to Be	7.4 Venting: Pressure-vacuum 7.5 IMO Pollution Category: Currently not available
4.5 Special Hazards of Combustion Products: Irritating formaldehyde gas	7.6 Ship Type: Currently not available7.7 Barge Hull Type: Currently not available
4.6 Behavior in Fire: Not pertinent	8. HAZARD CLASSIFICATIONS
 4.7 Auto Ignition Temperature: 459°F 4.8 Electrical Hazards: Currently not 	8.1 49 CFR Category: Flammable liquid 8.2 49 CFR Class: 3
4.9 Burning Rate: 5.5 mm/min.	8.3 49 CFR Package Group: II
4.10 Adiabatic Flame Temperature: Currently not available 4.11 Stoichometric Air to Eucl Patio: 23.8	8.5 NFPA Hazard Classification:
(calc.) 4 12 Flame Temperature: Currently not	Category Classification Health Hazard (Blue)
available 4.13 Combustion Molar Ratio (Reactant to	Flammability (Red) 3 Instability (Yellow) 2
Product): 7.0 (calc.) 4 14 Minimum Oxygen Concentration for	8.6 EPA Reportable Quantity: Not listed. 8.7 EPA Pollution Category: Not listed
Combustion (MOCC): Not listed	8.8 RCRA Waste Number: Not listed
5. CHEMICAL REACTIVITY	8.9 EPA FWPCA List: Not listed
 5.1 Reactivity with Water: No reaction 5.2 Reactivity with Common Materials: No reaction 	9. PHYSICAL & CHEMICAL PROPERTIES
5.3 Stability During Transport: Stable	9.1 Physical State at 15° C and 1 atm: Liquid
5.4 Neutralizing Agents for Acids and Caustics: Not pertinent	9.3 Boiling Point at 1 atm: 108°F = 42°C =
5.6 Inhibitor of Polymerization: Not pertinent	9.4 Freezing Point: -157°F = -105°C = 168°K
6. WATER POLLUTION	488.2°K
6.1 Aquatic Toxicity: Currently not available	9.6 Critical Pressure: Not pertinent 9.7 Specific Gravity: 0.861 at 20°C (liquid)
6.2 Waterfowl Toxicity: Currently not available	9.8 Liquid Surface Tension: 21.1 dynes/cm = 0.0211 N/m at 20°C
6.3 Biological Oxygen Demand (BOD): Currently not available	9.9 Liquid Water Interfacial Tension: Not pertinent
6.4 Food Chain Concentration Potential: None	9.10 Vapor (Gas) Specific Gravity: 2.6 9.11 Ratio of Specific Heats of Vapor (Gas):
6.5 GESAMP Hazard Profile: Bioaccumulation: - Damage to living resources: -	9.12 Latent Heat of Vaporization: 161.5 Btu/lb
Human Oral hazard: 0 Human Contact hazard:	9.13 Heat of Combustion: -10,970 Btu/lb =
Reduction of amenities: X	9.14 Heat of Decomposition: Not pertinent
	9.15 Heat of Solution: Not pertinent9.16 Heat of Polymerization: Not pertinent
	9.17 Heat of Fusion: Currently not available
	9.19 Reid Vapor Pressure: Currently not available available
NOTE	S

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9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
34 36 38 40 42 44 46 48 50 52 54 56 56 58 60 62 64 66 68 70 72 74 76	54.860 54.720 54.650 54.580 54.520 54.450 54.310 54.240 54.170 54.240 54.170 54.170 54.170 54.100 53.890 53.890 53.890 53.850 53.680 53.610 53.610 53.410	10 15 20 25 30 35 40 45 50 55 60 65 70 75 80	0.484 0.486 0.490 0.491 0.493 0.495 0.497 0.495 0.497 0.498 0.500 0.500 0.502 0.503 0.505 0.507 0.509	51 52 53 54 55 56 57 58 50 60 61 62 63 64 65 66 67 71 71 73 74 75 76	1.048 1.048	35 40 45 50 55 60 65 70 75 80 85 90 95 100	0.396 0.388 0.372 0.365 0.358 0.351 0.344 0.338 0.332 0.326 0.320 0.315 0.309

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
60	32.000	35 40 50 55 60 65 70 75 80 85 90 95 90 95 100 105 110	2.738 3.122 3.551 4.029 4.560 5.149 5.800 6.518 7.310 8.181 9.136 10.180 11.330 11.2580 13.940 15.420	35 40 50 55 60 65 70 75 80 85 90 95 100 105 110	0.03924 0.04430 0.04989 0.05604 0.06281 0.07024 0.08724 0.08724 0.09693 0.10750 0.11890 0.13130 0.14480 0.15930 0.17500 0.19180	0 20 40 60 80 120 140 160 180 220 240 260 280 320 320 320 340 360 320 340 340 340 340 340 340 340 340	0.294 0.301 0.309 0.317 0.324 0.332 0.347 0.354 0.369 0.376 0.369 0.376 0.383 0.390 0.397 0.404 0.411 0.417 0.424 0.431 0.437 0.434 0.450