Acetaldehyde

For the production of METH-1 Test Ampule

Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

Product Form: Mixture
Product Name: Acetaldehyde –d4

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture: Drug Identification

1.3 Details of the supplier of the safety data sheet

NARTEC, Inc.
1001 N. Hawk's Perch Ave. Bldg A
Nixa, MO 65714

Phone & Fax: 417-587-3340
http://www.nartec.com
aware@nartec.com

1.4 Emergency telephone number

Emergency number: 1-800-424-9300

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acetaldehyde

Flammable Liquids:	Category 1
Serious Eye Damage/Irritation:	Category 2
Carcinogenicity:	Category 2
Specific Target Organ Tox.:	Category 3

Target Organs – Respiratory System.

2.2 Label Elements

GHS-US Labeling

Hazard pictograms (GHS-US)



Signal Word (GHS-US): Danger

Hazard Statements:

Extremely flammable liquid and vapor
Causes serious eye irritation
May cause respiratory irritation
Suspected of causing cancer

Precautionary Statements: Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Use personal protective equipment as required, such as gloves and eye/face protection.
Wash face, hands, and any exposed skin thoroughly after handling.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Use outdoors or in a well-ventilated area.
Do not eat, drink, or smoke when using this product.
Keep away from heat, sparks, open flames, and hot surfaces.
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.
Keep cool

SECTION 3: Composition/information on ingredients

NAME	Product Identifier	%	TLV
Acetaldehyde CH3CHO	(CAS No) 75-07-0	(.008cc in 0.40cc H2O	100 ppm (180 mg/m3)

SECTION 4: First aid measures

4.1 Description of first aid measures

First-aid measures general: Immediate medical attention is required. Show SDS to doctor.

First-aid after inhalation: Remove from exposure to fresh air. If breathing is difficult give oxygen. If not breathing give artificial respiration. Obtain medical attention.

First-aid after skin contact: Wash immediately with plenty of soap and water (15 minutes). Medical attention is required.

First-aid after eye contact: Rinse immediately with plenty of water including under the eyelids (15 minutes). Obtain medical attention.

First-aid after ingestion: Rinse mouth with water. Do NOT induce vomiting. Obtain emergency medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Breathing difficulties. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide (CO2).

5.2 Special hazards arising from the substance or mixture

Flash point: -27 ^{0}C / -16.6 ^{0}F

Auto ignition Temperature

Explosion Limits

Upper: 60.0%

Lower: 4.0%

Specific Hazards arising from the chemical:

Extremely flammable. Flammable vapors may travel to source of ignition and flash back.

Hazardous Combustion Products:

Carbon monoxide (CO) Carbon Dioxide (CO2)

Protective Equipment and Precautions for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical Hazards
2	4	1	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment.

6.2 Environmental precautions

See section 12

6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Do not let this chemical enter the environment.

SECTION 7: Handling and storage

7.1 Handling

Avoid contact with skin and eyes. Do not breathe dust, vapors, or spray mist. Do not ingest. Use only in area provided with appropriate exhaust ventilation. Use explosion-proof equipment and non-sparking tools.

7.2 Conditions for safe storage

Keep in a dry place. Keep container tightly closed. Keep away from heat and sources of ignition. Flammables area. Keep under nitrogen. Keep refrigerated.

SECTION 8: Exposure controls/personal protection

8.1 Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

8.2 Exposure controls

Personal protective equipment: Avoid all unnecessary exposure. Gloves, safety glasses, gas mask.



Skin/Body protection: Wear protective gloves and clothing to prevent skin exposure.

Eye protection: Chemical goggles or safety glasses

Respiratory protection: Wear appropriate mask/respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State:	Liquid
Appearance:	Colorless
Odor:	Pungent
Melting Point/Range:	-125 ^{0}C / -193 ^{0}F
Boiling Point/Range:	20.5 ^{0}C / 68.9 ^{0}F @ 760 mmHg
Flash Point:	-27 ^{0}C / -16.6 ^{0}F
Flammability or Explosive Limits	
Upper:	60.0%
Lower:	4.0%
Vapor Pressure:	750 mmHg @ 20 ^{0}C
Vapor Density:	1.52
Relative Density:	0.860
Auto Ignition Temperature:	175 ^{0}C / 347 ^{0}F
Viscosity:	0.24 Pas at 20 ^{0}C
Molecular Formula:	C2 D4 O
Molecular Weight:	48.09

SECTION 10: Stability and reactivity

10.1 Reactive Hazard

No data available

10.2 Stability

Hydroscopic. Air sensitive.

10.3 Hazardous Polymerization and Reactions

Hazardous polymerization may occur. No reactions under normal processing.

10.4 Conditions to avoid

Keep away from open flames, hot surfaces, and sources of ignition. Exposure to air. Incompatible products. Exposure to moist air or water.

10.5 Incompatible materials

Acids, Bases, Amines, Ammonia, oxygen, Peroxides, Reducing agents

10.6 Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO2).

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity: No information available
Irritation: No information available
Sensitization: No information available
Carcinogenicity: Table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Acetaldehyde	1632-89-9	not listed	not listed	not listed	not listed	not listed

No information available on: mutagenic effects, reproductive effects, developmental effects, teratogenicity, STOT – single or repeated exposure, aspiration hazard, and endocrine disruptor information.
Symptoms/effects, both acute and delayed: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, Nausea and vomiting.

SECTION 12: Ecological information

Ecotoxicity: Do not empty into drains.
No information available: Persistence and degradability. Bioaccumulation/Accumulation, or Mobility.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transportation information

DOT
UN-No: UN1089
Hazard class: 3
Packing group: 1
TDG
UN-No: UN1089
Hazard class: 3
Packing group: 1
IATA
UN-No: 1089
Proper Shipping Name: ACETALDEHYDE
Hazard class: 3
Packing group: 1
IMDG/IMO
UN-No: 1089
Proper Shipping Name: ACETALDEHYDE
Hazard class: 3
Packing group: 1

SECTION 15: Regulatory information

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Acetaldehvde	-	-	-	216-641-6	-	-	-	-	-	-	-

Legend:

X – Listed
E – Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA
N – Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
P – Indicates a commenced PMN substance
R – Indicates a substance that is the subject of a Section 6 management rule under TSCA
S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
T - Indicates a substance that is the subject of a Section 4 test rule under TSCA
XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base

Production and Site Reports (40 CFR 710 (B).
Y1 – Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
Y2 – Indicates an exempt polymer that is a polyester and is made from reactants included in a specified list of low concern reactants that comprise one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations:

TSCA 12(b): Not applicable
SARA 313: Not applicable
SARA 311/312 Hazardous Catagorization

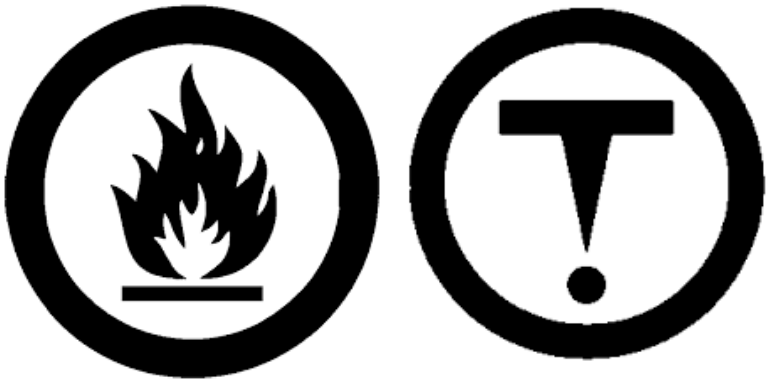
Acute Heath Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act Not applicable
Clean Air Act Not applicable
OSHA Occupational Safety and Health Administration Not applicable
CERCLA Not applicable
California Proposition 65 This product does not contain any Proposition 65 chemicals
State Right-to-Know Not applicable
U.S. Department of Transportation
Reportable Quantity (RQ): N
DOT Marine Pollutant: N
DOT Severe Marine Pollutant: N
U.S. Department of Homeland Security
This product does not contain any DHS chemicals

Other International Regulations:

Mexico – Grade: No Information available
Canada: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR) and the SDS contains all the information required by the CPR

WHMIS Hazard Class: B2 Flammable liquid
D2B Toxic Materials



SECTION 16: Other Information

Prepared by: NARTEC, Inc
Date: 12-10-2015

Disclaimer:
The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.