

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006, Regulation (EU) No 2015/830, Regulation (EC) No 1272/2008

Acetaldehyde

Revision Date 27.08.2015

Version 3.0

EU / EN

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name : Acetaldehyde
Chemical name : Acetaldehyde
CAS-No : 75-07-0
EC-No : 200-836-8
Registration number : 01-2119451152-51-0004

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

Use of the Substance/ Mixture : Raw material for industry.

1.3 Details of the supplier of the safety data sheet

Company : Nevinnomyssky Azot JSC
1 Nizyaeva str., Nevinnomyssk, Stavropol Territory, 357107, Russia

Telephone : + 7 (86554) 4-42-65

E-mail address : nevinazot@eurochem.ru

Only representative : AB "Lifosa"
Juodkiskio 50, LT-57502 Kedainiai, Lithuania

Telephone : + (370 347) 66 483

E-mail address : info@lifosa.com

1.4 Emergency telephone number

Austria: Poison Control Centre, Tel.: (+43)-1-406-43-43;

Belgium: Belgisch Antigifcentrum, Tel.: 070/245-245;

Bulgaria: Многопрофилна болница за активно лечение и спешна медицина "Н.И.Пирогов",
Tel.: (+359)-2-9154-409;

Croatia: Poison Control Centre, Tel: (+385)-1-23-48-342;

Czech Republic: Toxikologické informační středisko Telefon: (+420)-224-919-293,

Denmark: Poison Control Hotline, Tel.: (+45)-82-12-12-12;

Estonia: National emergency telephone number: 112 or Poison information telephone number:
16662, calling from abroad: (+372)-626-93-90;

Finland: Poison Information Centre, Tel.: (09)-471-977 (direct) or (09)-4711;

France: ORFILA (INRS): (+33)-(0)-1-45-42-59-59;

Hungary: Az Egészségügyi Toxikológiai Tájékoztató Szolgálat elérhetőségei Tel: (+36)-80-201-199;

Latvia: Valsts Toksikoloģijas centra Saindēšanās un zāļu informācijas centrs, Tel.: (+371)-67042473;

Lithuania: Sveikatos apsaugos ministerijos ekstremalių sveikatai situacijų centras,
Tel.: (+370)-5-236-20-52 or (+370)-687-53378;

Malta: Mater Dei Hospital, Tel: 2545-0000;

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Portugal: Centro de Informação Antivenenos (Portuguese Poison Centre), Tel: 808-250-143;

Romania: Biroul RSI Si Informare Toxicologica, Tel.: 021-318-36-06 (direct) (8.00 - 15.00);

Slovak Republic: National Toxicological Information Centre (+421)-2-5477-4166;
(+420)-224-915-402;

Sweden: 112.

Note: please, consult with your local/national competent authorities for the emergency number in your country.

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to REGULATION (EC) No 1272/2008

Flammable liquids, Category 1

H224: Extremely flammable liquid and vapour.

Acute toxicity (oral), Category 4

H302: Harmful if swallowed.

Carcinogenicity, Category 2

H351: Suspected of causing cancer.

Serious eye irritation, Category 2

H319: Causes serious eye irritation.

Specific target organ toxicity, single exposure, Category 3

H335: May cause respiratory irritation.

2.2 Label elements

Labeling according to REGULATION (EC) No 1272/2008

Hazard pictogram (s) :



GHS02: flame



GHS08: health hazard



GHS07: exclamation mark

Signal Word : Danger

Hazard statements : H224 : Extremely flammable liquid and vapour.

H302 : Harmful if swallowed.

H351 : Suspected of causing cancer.

H319 : Causes serious eye irritation.

H335 : May cause respiratory irritation.

Precautionary statements : **Prevention:**

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

P233 : Keep container tightly closed.

P271 : Use only outdoors or in well-ventilated area.

P281 : Use personal protective equipment as required.

Storage:

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

P405 : Store locked up.

All precautionary statements see Section 16.

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2.3 Other hazards

No data available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

The product is a chemical substance within the meaning of the REACH Regulation (1907/2006/EC). The following table contains the main constituent at the top.

Chemical Name	Concentration, wt. %	CAS-No	EC-No / Registration number	Index-No	GHS
Acetaldehyde	≤100	75-07-0	200-836-8/ 01-2119451152-51-0004	605-003-00-6	Flam.Liq.1, H224; Carc.Cat.2, H351; Eye Irrit. 2, H319; STOT SE, H335

For the full text of the H-phrases mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). First aider needs to protect himself. Move out of dangerous area. Never give anything by mouth to an unconscious person. Take off contaminated clothing and shoes immediately.
- Inhalation : If breathed in, move person into fresh air. Keep patient warm and at rest. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician.
- Skin contact : In case of contact, immediately flush skin with soap and plenty of water. Consult a physician.
- Eye contact : Protect unharmed eye. If easy to do, remove contact lens, if worn. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician immediately.
- Ingestion : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

May cause respiratory irritation, blurred vision and loss of consciousness when ingested.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

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SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media : High volume water jet.

5.2 Special hazards arising from the substance or mixture

Specific hazards : Hazardous decomposition products may be formed under fire conditions (see section 10). Exposure to decomposition products may be a hazard to health.

5.3 Advice fire fighters

Special protective equipment for fire-fighters : Wear self contained breathing apparatus for fire fighting if necessary. Use personal protective equipment.

Further information : Standard procedure for chemical fires. Use spray water to cool unopened containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedure

Refer to protective measures listed in sections 7 and 8. Use personal protective equipment. Remove all sources of ignition. Avoid contact with skin and eyes. Avoid inhalation of vapour, mist or spray. Ensure adequate ventilation, especially in confined areas. Immediately evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities. Avoid release to the environment. Refer to special instructions.

6.3 Methods and materials for containment and cleaning up

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations. Clean contaminated surface thoroughly.

6.4 Reference to other sections

See Section 7, 8, 11, 12 and 13.

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SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8. Avoid exposure - obtain special instructions before use. Do not breathe vapours, mist or spray. Avoid contact with skin and eyes. Prevent the creation of flammable or explosive concentrations of vapour in air. Take precautionary measures against static discharges. Use appropriate container to avoid environmental contamination. Do not carry cloths that have come into contact with the product in your clothing. Handle with care.

Advice on protection against fire and explosion : Normal measures for preventive fire protection. Keep away from heat and sources of ignition.

7.2 Conditions for safe storage including any incompatibilities

Requirements for storage areas and containers : Store in a place accessible by authorized persons only. Store in cool place. Keep tightly closed in a dry and well-ventilating place. Containers which are opened must be carefully re-sealed and kept upright to prevent leakage. Store in steel containers (tanks).

Advice on common storage : Keep away from food, drink and animal feeding stuffs. Incompatible with acids and bases. Do not store with oxidizing agents.

Storage period : 1 month.

7.3 Specific end use(s)

No data available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	CAS-No	Control parameters	Basis	Country
Acetaldehyde	75-07-0	TWA: 90 mg/m ³ , 50 ppm; STEL: 90 mg/m ³ , 50 ppm	OEL-AT	Austria
Acetaldehyde	75-07-0	MLV: 46 mg/m ³ , 25 ppm (8 hours)	MB 14.3.2002	Belgium
Acetaldehyde	75-07-0	TWA: 30 mg/m ³ ; STEL: 200 mg/m ³	НАРЕДБА № 13	Bulgaria
Acetaldehyde	75-07-0	TWA: 37 mg/m ³ , 20 ppm; STEL: 92 mg/m ³ , 50 ppm	OEL-HR	Croatia
Acetaldehyde	75-07-0	MAC: 360 mg/m ³ , 200 ppm	OEL-CY	Cyprus
Acetaldehyde	75-07-0	TWA: 50 mg/m ³	361/2007 Sb.	Czech Republic
Acetaldehyde	75-07-0	TWA: 45 mg/m ³ ; STEL: 90 mg/m ³ , 50 ppm	RT I 2001, 77, 460	Estonia
Acetaldehyde	75-07-0	STEL: 46 mg/m ³ , 25 ppm	HTP-ARVOT 2014	Finland
Acetaldehyde	75-07-0	TWA: 180 mg/m ³ , 100 ppm	ED984	France
Acetaldehyde	75-07-0	MAK: 91 mg/m ³ , 50 ppm	TRGS 900	Germany

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Components	CAS-No	Control parameters	Basis	Country
Acetaldehyde	75-07-0	TWA: 180 mg/m ³ , 100 ppm; STEL: 270 mg/m ³ , 150 ppm	OEL-GR	Greece
Acetaldehyde	75-07-0	TWA: 25 mg/m ³ ; STEL: 25 mg/m ³	EüM-SzCsM 25/2000	Hungary
Acetaldehyde	75-07-0	TWA: 45 mg/m ³ , 25 ppm; STEL: 45 mg/m ³ , 25 ppm	S.I. No. 619 of 2001	Ireland
Acetaldehyde	75-07-0	TWA: 5 mg/m ³	MK 01.02.2011. Nr.92	Latvia
Acetaldehyde	75-07-0	TWA: 45 mg/m ³ , 25 ppm; STEL: 90 mg/m ³ , 50 ppm	2011 m. 1 d. Nr. V-824/A1-389	Lithuania
Acetaldehyde	75-07-0	TWA: 37 mg/m ³ ; STEL 92 mg/m ³	OEL-NL	Netherlands
Acetaldehyde	75-07-0	TWA: 90 mg/m ³ , 50 ppm; STEL: 180 mg/m ³ , 100 ppm	Hotarârea nr. 1218	Romania
Acetaldehyde	75-07-0	TWA: 91 mg/m ³ , 50 ppm;	Nariadenie 300/2007 Z.z.	Slovak Republic
Acetaldehyde	75-07-0	TWA: 91 mg/m ³ , 50 ppm; STEL: 91 mg/m ³ , 50 ppm;	OEL-SI	Slovenia
Acetaldehyde	75-07-0	STEL: 46 mg/m ³ , 25 ppm	OEL-ES	Spain
Acetaldehyde	75-07-0	LLV: 45 mg/m ³ , 25 ppm; STV: 90 mg/m ³ , 50 ppm	AFS 2011:18	Sweden
Acetaldehyde	75-07-0	TWA: 37 mg/m ³ , 20 ppm STEL: 92 mg/m ³ , 50 ppm	EH40/2005	United King- dom

PNEC (Predicted No effect Concentration)

Acetaldehyde : No data available

DNEL (Derived No Effect Level)/DMEL (Derived Minimal Effect Level)

Acetaldehyde : No data available

8.2 Exposure controls

Engineering measures

Provide sufficient air exchange and/or exhaust in work rooms. Highly effective exhaust ventilation.

Personal protective equipment

Respiratory protection : Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Remarks : Use respirators and components tested and approved under appropriate government standards CEN (EU).

Hand protection

Material : Butyl-rubber.

Remarks : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer.

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- Eye protection : Tightly fitting safety goggles. Face shield.
- Remarks : Use equipment for eye protection tested and approved under appropriate government standards such as EN 166 (EU).
- Skin and body protection
- Remarks : Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
General industrial hygiene practice.
Avoid breathing vapors, mist or spray.
Avoid contact with skin, eyes and clothing.
When using do not eat, drink or smoke.
Wash hands before breaks and at the end of workday.
Follow the skin protection plan.
Wash contaminated clothing before re-use.

Environmental exposure controls

No data available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- Form : Liquid
- Colour : Colourless
- Odour : Pungent
- Odor threshold : No data available.
- Flash point : (- 39) °C
- Lower explosion limit : 4,1 % (vol.)
- Upper explosion limit : 57 % (vol.)
- Explosive properties : Non explosive
- Flammability : Extremely flammable.
- Oxidizing properties : Not oxidizing
- Self-ignition temperature : 175 °C at 1013 hPa
- Melting point/range : (- 123,37) °C
- pH : No data available.
- Boiling point/boiling range : 20,1 °C at 101,3 kPa
- Vapor pressure : 120 kPa at 25 °C
- Relative density : 0.78 g/cm³ at 18 °C
- Bulk density : Not applicable.
- Water solubility : Miscible with water
- Miscibility with water (15 °C) : At any ratio (> 90%)
- Partition coefficient: n- : 0.45
octanol/water
- Solubility in other solvents : No data available.
- Viscosity, dynamic : No data available
- Viscosity, kinematic : No data available.
- Relative vapor density : No data available.

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Evaporation rate : No data available.
Decomposition temperature : No data available.

9.2 Other information

Molecular weight : 44,05 g/mol

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No data available.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Vapours may form explosive mixtures with air.

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Oxidizing agents, acids and bases.

10.6 Hazardous decomposition products

Hazardous decomposition products : Build-up of dangerous/toxic fumes possible in cases of fire/high temperature:
Carbon oxides.

Thermal decomposition : No data available.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

Acetaldehyde : LD₅₀ (rat): 660 - 1930 mg/kg

Acute inhalation toxicity

Acetaldehyde : LC₅₀ (rat): 24 040 mg/m³
Exposure time: 4 h

Acute dermal toxicity

Acetaldehyde : No data available.

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Acute toxicity (other routes of administration)

No data available.

Skin corrosion / irritation

Skin irritation : slightly irritating (occlusive dressing only)

Serious eye damage / eye irritation

Eye irritation : Causes serious eye irritation.

Sensitization of the respiratory / skin

Skin sensitization : Non skin sensitizing.

Respiratory sensitization : Non respiratory sensitizing.

Mutagenicity

No mutagenic effect.

Carcinogenicity

Limited evidence of a carcinogenic effect.

Reproductive toxicity

No reproductive effect.

Teratogenicity

No data available.

Specific target organ toxicity after single exposure

May cause respiratory irritation.

Specific target organ toxicity after repeated exposure (sub-acute / sub-chronic)

Repeated dose toxicity: (sub-acute/ sub-chronic)

Acetaldehyde : NOEL (rat, subchronic): 125 mg/kg bw day
Exposure time: 28 days, 7 day/week
Route of application: oral

Aspiration hazard

No data available.

Neurological effects

No data available.

Toxicology, metabolism, distribution

No data available.

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SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish:

Acetaldehyde : LC₅₀ (Leuciscus idus melanotus): 124 – 140 mg/l
Exposure time: 48 h

Toxicity to daphnia and other aquatic invertebrates:

Acetaldehyde : EC₅₀ (Daphnia Magna): 57.4 mg/l
Exposure time: 48 h

Toxicity to aquatic plants:

Acetaldehyde : EC₅₀ (Pseudokirchnerella subcapitata): > 100 mg/l
Exposure time: 72 h

12.2 Persistence and degradability

Biodegradability : Readily biodegradable.

12.3 Bioaccumulation potential

Acetaldehyde : No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT assessment and vPvB

No data available.

12.6 Other adverse effects

Adsorbed organic bound halogens (AOX) : Not included

Additional ecological information : The product should not be allowed to enter drains, water courses or the soil.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Advice on disposal and packaging : Disposal:
In accordance with local and national regulations. Do not dispose of waste into sewer. This material and its container must be disposed of in a safe way. Do not dispose of together with household waste. Waste codes should be assigned by the user based on the application for which the product was used.

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SECTION 14: TRANSPORT INFORMATION

ADR

UN-Number : 1089
Description of the goods : ACETALDEHYDE
Class : 3
Packing group : I
Classification Code : F1
Hazard identification No : 33
Labels : 3
Limited quantity : LQ3
Tunnel restriction code : D/E
Environmentally hazardous : no

RID

UN-Number : 1089
Description of the goods : ACETALDEHYDE
Class : 3
Packing group : I
Classification Code : F1
Hazard identification No : 33
Labels : 3
Limited quantity : LQ3
Environmentally hazardous : no

IATA

UN-Number : 1089
Description of the goods : Acetaldehyde
Class : 3
Packing group : I
Labels : 3
Packing instruction (cargo aircraft) : 361
Environmentally hazardous : no

IATA Passenger

UN-Number : 1089
Description of the goods : Acetaldehyde
Class : 3
Not permitted for transport

IMDG

UN-Number : 1089
Description of the goods : ACETALDEHYDE
Class : 3
Packing group : I
Labels : 3
EmS Number 1 : F-E
EmS Number 2 : S-D
Marine pollutant : no

Special precautions for the user

See Section 6, 7 and 8

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SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture

Special labelling of certain mixtures : Restricted to professional users.

Seveso Directive (2012/18/EU)	:	Quantity 1	Quantity 2
P5a Flammable liquids		10 t	50 t

National legislation

Other regulations : Take note of Dir 94/33/EC on the protection of young people at work.

15.2 CSA

The Chemical Safety Assessment was not undertaken.

SECTION 6: OTHER INFORMATION

Hazard statements:

H224 : Extremely flammable liquid and vapour.
H319 : Causes serious eye irritation.
H335 : May cause respiratory irritation.
H351 : Suspected of causing cancer.

Precautionary statements:

Prevention:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P240: Ground or 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.
P261: Avoid breathing vapours.
P264: Wash hands thoroughly after handling.

P280: Wear protective gloves, protective clothing, eye protection, face protection.

Response:

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or 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.
P308+P313: IF exposed or concerned: Get medical advice and attention.
P312: Call a POISON CENTER or doctor if you feel unwell.
P337+P313: If eye irritation persists: Get medical advice and attention.
P370+P378: In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. for extinction.

Storage:

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

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Disposal:

P501: Dispose of contents and container to in accordance with national regulation.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.