

Material Safety Data Sheet

Paraformaldehyde, 90-92%

ACC# 96373

Section 1 - Chemical Product and Company Identification

MSDS Name: Paraformaldehyde, 90-92%

Catalog Numbers: AC169650000, AC169650010, AC169650025, AC169650250

Synonyms:

Company Identification:

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
30525-89-4	Paraformaldehyde	90-92%	unlisted

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Not available. Appearance: white powder. Flash Point: 71 deg C.

Not available.

Target Organs: Respiratory system, eyes, nervous system, skin.

Potential Health Effects

Eye: Causes eye irritation. Causes redness and pain.

Skin: Causes skin irritation. Causes redness and pain. May cause sensitization by skin contact.

Ingestion: Harmful if swallowed. May cause irritation of the digestive tract. Symptoms may include: headache, excitement, fatigue, nausea, vomiting, stupor, and coma.

Inhalation: Harmful if inhaled. Causes respiratory tract irritation. May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. May cause anosmia (loss of smell). May produce nausea in low concentration and pulmonary edema in high concentrations. Inhalation of vapors may cause nausea, vomiting, dizziness, and loss of consciousness.

Chronic: Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated eye contact may cause conjunctivitis. Repeated inhalation may cause chronic bronchitis. Prolonged or repeated exposure may cause permanent eye damage. Possible risk of irreversible effects.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Get medical aid. If conscious drink water, then induce vomiting. If unconscious, immediately take victim to a physician and do NOT attempt to induce vomiting. Wash mouth out with water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Inhalation of high concentrations can cause pulmonary edema. Treatment for ingestion includes gastric lavage with water or saline until clear followed by activated charcoal with saline or sorbitol catharsis. Treat exposed person for anion-gap acidosis. Concurrently monitor blood methanol levels. For acidosis, use dialysis to remove formic acid. (Genium MSDS 492, Rev. A, July 91)

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Dusts at sufficient concentrations can form explosive mixtures with air. Will burn if involved in a fire. Combustible solid.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Flash Point: 71 deg C (159.80 deg F)

Autoignition Temperature: 300 deg C (572.00 deg F)

Explosion Limits, Lower: 7.00 vol %

Upper: 73.00 vol %

NFPA Rating: (estimated) Health: 3; Flammability: 1; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions.

Section 7 - Handling and Storage

Handling: Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Take precautionary measures against static discharges.

Storage: Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Paraformaldehyde	none listed	none listed	none listed

OSHA Vacated PELs: Paraformaldehyde: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Not available.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Powder

Appearance: white

Odor: strong, pungent - formaldehyde

pH: 3.5-5.0 @ 10% aq. sol.

Vapor Pressure: 1.2 mm Hg @ 25 deg C

Vapor Density: 1.03

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: 120 - 170 deg C (dec.)

Decomposition Temperature: Not available.

Solubility: Slightly soluble.

Specific Gravity/Density: Not available.

Molecular Formula: (CH₂O)_n

Molecular Weight: Not available.

Section 10 - Stability and Reactivity

Chemical Stability: Stable. However, may decompose if heated.

Conditions to Avoid: High temperatures, incompatible materials, exposure to moist air or water.

Incompatibilities with Other Materials: Acids, bases, brass, strong reducing agents, steel, bronze, copper, copper alloys, acid anhydrides, strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, formaldehyde.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 30525-89-4: RV0540000

LD50/LC50:

CAS# 30525-89-4:

Draize test, rabbit, eye: 100 mg Severe;

Draize test, rabbit, skin: 500 mg/24H Severe;

Inhalation, rat: LC50 = 1070 mg/m³/4H;

Oral, rat: LD50 = 800 mg/kg;

Carcinogenicity:

CAS# 30525-89-4: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: The epidemiological studies provide inadequate evidence to assess the carcinogenicity of formaldehyde in man.

Teratogenicity: No teratogenic effects were observed. The data were insufficient to adequately evaluate the teratogenic potential of this compound.

Reproductive Effects: No embryotoxic effects were observed. The data were insufficient to adequately evaluate the embryotoxic potential of this compound. Secondary sterility and menstrual disorders have been attributed to formaldehyde exposure.

Mutagenicity: One positive and one negative study on the induction of dominant lethal mutations by formaldehyde have been reported.

Neurotoxicity: No data available.

Other Studies:

Section 12 - Ecological Information

Ecotoxicity: No data available. Invertebrate toxicity: LC50 (96 hr) Mysidopsis bahia 31 mg/l

Environmental: Degradation studies: Laboratory activated sludge and septic tank treatment units withstood loading to 25% of the recommended dose without loss of efficiency. Higher doses caused a temporary reduction in COD removal. [Novak, J.T. et al Res.J. Water Pollut. Control Fed. 1990, 62(3), 288-295]

Physical: No information available.

Other: Biodegradable.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	PARAFORMALDEHYDE	PARAFORMALDEHYDE
Hazard Class:	4.1	4.1
UN Number:	UN2213	UN2213
Packing Group:	III	III

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 30525-89-4 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

CAS# 30525-89-4: 1000 lb final RQ; 454 kg final RQ

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 30525-89-4: acute, chronic, flammable.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

CAS# 30525-89-4 is listed as a Hazardous Substance under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 30525-89-4 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Massachusetts.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

XN

Risk Phrases:

R 20/22 Harmful by inhalation and if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

R 40 Limited evidence of a carcinogenic effect.

R 43 May cause sensitization by skin contact.

Safety Phrases:

- S 24 Avoid contact with skin.
- S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 30525-89-4: 2

Canada - DSL/NDSL

CAS# 30525-89-4 is listed on Canada's DSL List.

Canada - WHMIS

This product does not have a WHMIS classification.

Canadian Ingredient Disclosure List

CAS# 30525-89-4 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information
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MSDS Creation Date: 6/25/1999

Revision #2 Date: 6/10/2003

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, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.