

RUBRIQUE 1: Identification

1.1 Identification

Product Name: **Paraformaldehyde 2.5%, glutaraldehyde 2.5% in 0.1M cacodylate buffer**

Product Code: GF200174

1.2 Relevant identified uses of substance or mixture and not recommended uses

Identified uses: Laboratory chemicals,

1.3 Information about the security data sheet provider

Company: em-grade.com distributed by Delta
Microscopies

22bis, Saint-Ybars Road
31190 MAURESSAC - FRANCE

Phone: (33) 05 61 73 60 14

Fax: (33) 05 61 80 78 53

Email address: info@em-grade.com

1.4 Emergency call number

Emergency Call Number in France: 01 45 42 59 59 (ORFILA)

RUBRIQUE 2: Identification of hazards

2.1 Classification of substance or mixture:



GHS08 *Health hazard*

Resp. Sens. 1

H334 *May cause allergy or asthma symptoms or breathing difficulties if inhaled.*

Muta. 2

H341 *Suspected of causing genetic defects*

Carc. 1B

H350 *May cause cancer*



GHS05 *Corrosion*

Eye Dam.1

H318 *Causes serious eye damage*



GHS07

Skin Irrit. 2

H315 *Causes skin irritation*

Skin Sens. 1

H317 *May cause an allergic skin reaction.*

STOT SE 3

H335 *May cause respiratory irritation*

2.2 Labeling items:

The product is classified and labeled according to the Globally Harmonized System (GHS).

Danger pictograms



GHS08 GHS05 GHS07

Warning mention: *Danger*

Dangerous components for labelling: *glutaral, formaldehyde*

Danger mentions:

H315 *Causes skin irritation*
 H317 *May cause an allergic skin reaction.*
 H318 *Causes serious eye damage*
 H334 *May cause allergy or asthma symptoms or breathing difficulties if inhaled*
 H335 *May cause respiratory irritation*
 H341 *Suspected of causing genetic defects*
 H350 *May cause cancer*

Cautionary tips:

P284 *[In case of inadequate ventilation] wear respiratory protection*
 P305+P351+P338 *Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing*
 P310 *Immediately call a POISON CENTER/doctor*
 P321 *Specific treatment (see on this label).*
 P405 *Keeping under lock and key*
 P501 *Eliminate content/container in accordance with local/regional/national/international I regulations.*

2.3 Other dangers:

Results of PBT and vPvB evaluations: Not applicable

RUBRIQUE 3: Composition/component information

3.1 Substances:

not applicable

3.2 Mixture:

Mixture of the substances listed below with nonhazardous additions.

designation	CASE No.	Number EC	% mass
Formaldehyde	50-00-0	200-001-8	≤2.5%
Glutaral	111-30-8	203-856-5	≤2.5%

RUBRIQUE 4: First aid

4.1 Description of first aid

General notes:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

If inhaled

Supply fresh air or oxygen; call for doctor. In case of unconsciousness place patient stably in side position for transportation

In case of contact with the skin

Immediately wash with water and soap and rinse thoroughly.

In case of eye contact

Rinse opened eye for several minutes under running water. Then consult a doctor.

If swallowed

Immediately call a doctor

4.2 Main symptoms and effects, acute and delayed

No other important information available.

4.3 Indications of any immediate medical care and special treatment required

No other important information available

RUBRIQUE 5: Firefighting measures

5.1 Ways to extinguish

Use fire fighting measures that suit the environment. CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam

5.2 Specific hazards resulting from substance or mixture

No other important information available.

5.3 Advice to firefighters

Mouth respiratory protective device

RUBRIQUE 6: Measures in case of accidental dispersal

6.1 Individual precautions, protective equipment and emergency procedures

Not required.

6.2 Precautions for environmental protection

Inform respective authorities in case of seepage into water course or sewage system. Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.

6.3 Containment and cleaning methods and equipment

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated materials as waste in accordance with point 13.

Ensure adequate ventilation.

Reference to other topics

For information for safe handling, see Chapter 7. For information on personal protective equipment, see Chapter 8. For information on disposal, see Chapter 13.

Protective Action Criteria for Chemicals

- PAC-1:
50-00-0 formaldehyde 0.90 ppm
111-30-8 Glutaraldehyde 0.2 ppm
- PAC-2:
50-00-0 formaldehyde 14 ppm
111-30-8 Glutaraldehyde 1 ppm
- PAC-3:
50-00-0 formaldehyde 56 ppm
111-30-8 Glutaraldehyde 5 ppm

RUBRIQUE 7: Manipulation and storage

7.1 Precautions to Take for Safe Handling

Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.

Information about protection against explosions and fires: Keep respiratory protective device available.

7.2 Conditions for safe storage, including possible incompatibilities

No special requirements. Keep receptacle tightly sealed.

7.3 Special Final Use

Laboratory use

RUBRIQUE 8: Exposure controls/individual protection

8.1 Control Settings

Components with limit values that require monitoring at the workplace:	
50-00-0 formaldehyde	
PEL	Short-term value: 2 ppm Long-term value: 0.75 ppm see 29 CFR 1910.1048(c)
REL	Long-term value: 0.016 ppm Ceiling limit value: 0.1* ppm *15-min; See Pocket Guide App. A
TLV	Short-term value: 0.37 mg/m ³ , 0.3 ppm Long-term value: 0.12 mg/m ³ , 0.1 ppm DSEN; RSEN
111-30-8 glutaraldehyde	
REL	Ceiling limit value: 0.8 mg/m ³ , 0.2 ppm See Pocket Guide App. C
TLV	Ceiling limit value: 0.2 mg/m ³ , 0.05 ppm DSEN; RSEN ; activated or inactivated

Additional information: The lists that were valid during the creation were used as basis.



8.2 Exposure control

General protection and hygiene measures

Keep away from food, beverages and pet food. Immediately remove soiled or moistened clothing. Wash your hands before breaks and at the end of work. Store protective clothing separately.

Personal protective measures, such as personal protective equipment

Eye and face protection

Safety goggles with side protections

Skin protection

Long-sleeved clothing

Wear appropriate gloves. Consider the information given by the supplier regarding permeability and penetration times, and the specific conditions of the workplace (mechanical constraints, contact time).

Respiratory protection

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Heat hazards

nothingness

Environmental protection measures

No information available

RUBRIQUE 9: Physical and chemical properties

9.1 Information on essential physical and chemical properties

Appearance:

Physical status: Liquid

Color: Clear

Smell: Characteristic

Olfactory threshold: data not available

pH: data not available

Melting point: data not available

Boiling point/interval: undetermined

Flashpoint: not applicable

Flammability (solid, gas): the substance is not flammable

Ignition temperature: Product is not selfigniting

Explosive limit, higher: data not available

Explosive limit, lower: data not available

Density at 20oC: undetermined

Relative density: undetermined

Relative steam density: not applicable

Decomposition temperature: data not available

Hydrosolubility: Fully miscible.

Sharing coefficient: noctanol/water: data not available

Viscosity, dynamic: not applicable

Viscosity, cinematic: not applicable

Organic solvents 2.5%

VOC content 2.5%

9.2 More information void

RUBRIQUE 10: Stability and responsiveness

10.1 reactivity

No further relevant information available.

10.2 Chemical stability

No decomposition in case of compliant use.

10.3 Possibility of dangerous reaction

Dangerous polymerization: No information available.

Dangerous reactions: No known dangerous reaction

10.4 Conditions to avoid

No other important information available

10.5 Incompatible materials

No further relevant information available

10.6 Dangerous composition products

None under normal conditions of use.

RUBRIQUE 11: Toxicological information

11.1 Toxicological Effects Information

Acute toxicity

LD/LC50 values that are relevant for classification:

50-00-0 formaldehyde		
Oral	LD50	>200 mg/kg (rat)
111-30-8 glutaraldehyde		
Oral	LD50	134 mg/kg (rat)

Skin corrosion/skin irritation

Irritant to skin and mucous membranes

Severe eye damage/eye irritation

Strong irritant with the danger of severe eye injury

Sensitization:

Sensitization possible through inhalation

Sensitization possible through skin contact.

Additional toxicological information

The product shows the following dangers according to internally approved calculation methods for preparations: Harmful Irritant

Carcinogenic categories

IARC (International Agency for Research on Cancer)		
50-00-0	formaldehyde	1
NTP (National Toxicology Program)		
50-00-0	formaldehyde	K
OSHA-Ca (Occupational Safety Health Administration)		
50-00-0	formaldehyde	

RUBRIQUE 12: Ecological information

12.1 Toxicity

No other important information available.

12.2 Persistence and degradability

No other important information available.

12.3 Bioaccumulation Potential

No other important information available.

12.4 Mobility in the ground

No other important information available.

•Ecotoxic effects:

Remark: Harmful to fish

General notes:

Water hazard class 3 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Harmful to aquatic organisms

12.5 Results of PBT and vPvB evaluations

not applicable

12.6 Other adverse effects

No other important information available.

RUBRIQUE 13: Elimination considerations

13.1 Waste Treatment Methods

Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. .

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

Recommended cleaning product: Water, if necessary with cleaning products

RUBRIQUE 14: Transportation information

14.1 UN Number *UN1760*
DOT, ADR, IMDG, IATA

14.2 United Nations Shipping Name
DOT *Corrosive liquids, n.o.s. (Glutaraldehyde, Formaldehyde solutions) · 1760 CORROSIVE LIQUID, N.O.S. (Glutaraldehyde, FORMALDEHYDE SOLUTION) ·*
ADR *CORROSIVELIQUID, N. O. S. (G I u t a r a l d e h y d e , F O R M A L D E H Y D E SOLUTION)*
IMDG, IATA

14.3 Transport Danger Class

DOT



Class *8 Corrosive substances*
Label *8*

ADR,IMDG, IATA



Class *8 Corrosive substances*
Label *8*

14.4 Packing Group
DOT,ADR, IMDG, IATA *III*

14.5 DAngers for the environment *Not applicable.*

14.6 Special precautions to be taken by the user
Hazard identification number (Kemler code) *Not applicable.*
EMS Number: *80*
Segregation groups *F-A,S-B*
Stowage Category *Acids*
Stowage Code *B*
SW2Clear of living quarters

14.7 Bulk transport in accordance with Schedule II of the MARPOL Convention and the IBC *Not applicable.*

Transport/Additional information:
DOT

Quantity limitations

On passenger aircraft/rail: 5 L

On cargo aircraft only: 60 L

ADR ·

Excepted quantities (EQ)

Code: E2 Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

IMDG ·

Limited quantities (LQ)

1L ·

Code: E2

Excepted quantities (EQ)

Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

UN "Model Regulation":

UN 1760 CORROSIVE LIQUID, N.O.S.
(GLUTARALDEHYDE, FORMALDEHYDE SOLUTION), 8, II

RUBRIQUE 15: Regulatory information

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

· Sara

· Section 355 (extremely hazardous substances):

50-00-0 formaldehyde

· Section 313 (Specific toxic chemical listings):

50-00-0 formaldehyde

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

· Hazardous Air Pollutants

50-00-0 formaldehyde

· Proposition 65

· Chemicals known to cause cancer:

50-00-0 formaldehyde

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

50-00-0 formaldehyde B1

· TLV (Threshold Limit Value established by ACGIH)

50-00-0 formaldehyde A2

111-30-8 Glutaraldehyde A4

· NIOSH-Ca (National Institute for Occupational Safety and Health)

50-00-0 formaldehyde

GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS)

RUBRIQUE 16: More information

These indications are based on the current state of our knowledge, but do not constitute a guarantee as to the properties of the product and do not give rise to a contractual legal relationship. They do not claim to be exhaustive and should be considered as a guide



Acronyms and abbreviations:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International

Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Muta. 2: Germ cell mutagenicity – Category 2

Carc. 1B: Carcinogenicity – Category 1B

End of MSDS