

1 Identification of the substance/mixture and of the company

- **Product identifier**
- **Trade name:** gL-Developer
- **Product number:** A201100
- **CAS Number:**
628-63-7
- **EC number:**
211-047-3
- **Index number:**
607-130-00-2
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
MicroChem Corp.
200 Flanders Road
Westborough, MA 01581 USA
- **Information department:**
Product Safety
Email: productsafety@microchem.com
- **Emergency telephone number:**
MicroChem Corp : 617-965-5511
Chemtec USA Emergency : 800-424-9300
Chemtec International Emergency : 703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.

- **Label elements**

- **GHS label elements**

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

- **Hazard pictograms**



GHS02

- **Signal word** Warning

- **Hazard statements**

H226 Flammable liquid and vapor.

- **Precautionary statements**

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

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P370+P378 In case of fire: Use for extinction: Alcohol resistant foam.

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- P370+P378 In case of fire: Use for extinction: Fire-extinguishing powder.
 P370+P378 In case of fire: Use for extinction: Carbon dioxide.
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0
 Fire = 2
 Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	2	Fire = 2
REACTIVITY	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
628-63-7 Amyl Acetate
- **Identification number(s)**
- **EC number:** 211-047-3
- **Index number:** 607-130-00-2

4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Generally the product does not irritate the skin.
Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Wash eyes immediately with a large amount of water or normal saline, occassionally lifting upper and lower eye lids until no evidence of chemical remains (at least 20 minutes). Remove contact lenses if present and easy to remove. Seek immediate medical attention.
- **After swallowing:**
Do not induce vomiting unless instructed to do so by a physician. Wash out mouth with water and keep person at rest. Seek immediate medical attention.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** Treat symptomatically.

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5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Alcohol resistant foam
Fire-extinguishing powder
Carbon dioxide
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**
Containers may explode due to pressure increase when container is exposed to extreme heat. Vapors may travel a considerable distance to a source of ignition and flash back along vapor trail.
- **Advice for firefighters**
- **Protective equipment:** Wear SCBA.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Keep away from ignition sources
- **Environmental precautions:** Do not allow product to reach sewage system or any drains.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaust at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Use explosion-proof apparatus / fittings and spark-proof tools.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and containers:** Store in a cool location.
- **Information about storage in one common storage facility:**
Store away from oxidizing agents.
Do not store together with alkalis (caustic solutions).
- **Further information about storage conditions:**
Protect from heat and direct sunlight.
Keep container well-sealed in cool, dry location.
Store receptacle in a well ventilated area.
- **Specific end use(s)** No further relevant information available.

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8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

628-63-7 Amyl Acetate

PEL Long-term value: 525 mg/m³, 100 ppm

REL Long-term value: 525 mg/m³, 100 ppm

TLV Short-term value: 532 mg/m³, 100 ppm

Long-term value: 266 mg/m³, 50 ppm

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

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:** Wash hands before breaks and at the end of work.

· **Respiratory equipment:**

In case of low exposure, use cartridge respirator. In case of intensive or longer exposure, use SCBA.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves:** Nitrile rubber, NBR

· **Penetration time of glove material:** Contact glove manufacture for break-through time.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid

Color: Colorless

· **Odor:** Mild

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: -100 °C (-148 °F)

Boiling point/Boiling range: 146 °C (295 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

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· Ignition temperature:	375 °C (707 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Not determined.
· Danger of explosion:	Not determined.
· Explosion limits:	
Lower:	1 Vol %
Upper:	7.5 Vol %
· Vapor pressure at 20 °C (68 °F):	5.3 hPa (4 mm Hg)
· Density at 20 °C (68 °F):	0.8752 g/cm ³ (7.304 lbs/gal)
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	1.6-2.3 (BuAc=1)
· Solubility in / Miscibility with Water at 20 °C (68 °F):	1.8 g/l
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Organic solvents:	100.0 %
VOC content:	100.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability** Stable under normal use conditions
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:**
 - Strong oxidizing agents
 - Strong bases
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

628-63-7 Amyl Acetate

Oral	LD50	6500 mg/kg (Rat)
Dermal	LD50	7400 mg/kg (rabbit)
Inhalative	LC50/6 h	5200 ppm (Rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.

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- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

Substance is not listed.

- **NTP (National Toxicology Program)**

Substance is not listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

628-63-7 Amyl Acetate

EC50/24 h 550 mg/l (algae)

210 mg/l (daphnia magna)

LC50/96 h 65 mg/l (Gambusia affinis (Mosquito fish))

- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not known to be hazardous to water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Must not be disposed of as regular garbage/trash. Do not allow product to reach sewage system.
Disposal must be made in accordance with Federal, State, and Local regulations.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made in accordance with Federal, State, and Local regulations.

14 Transport information

- **UN-Number**

DOT, ADR, IMDG, IATA

UN1104

- **UN proper shipping name**

DOT, ADR

Amyl acetates

IMDG, IATA

AMYL ACETATES

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· Transport hazard class(es)

· DOT



· Class 3 Flammable liquids.
 · Label 3

· ADR, IMDG, IATA



· Class 3 Flammable liquids
 · Label 3

· Packing group

· DOT, ADR, IMDG, IATA III

· Environmental hazards:

· Marine pollutant: No

· Special precautions for user Warning: Flammable liquids

· Danger code (Kemler): 30

· EMS Number: F-E,S-D

· Transport in bulk according to Annex II of
 MARPOL73/78 and the IBC Code Not applicable.

· UN "Model Regulation": UN1104, Amyl acetates, 3, III

15 Regulatory information

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

· Sara

· Section 355 (extremely hazardous substances):

Substance is not listed.

· Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act): All ingredients are listed or comply with TSCA regulations.

· Proposition 65

· Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

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Trade name: gL-Developer

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· **Chemicals known to cause developmental toxicity:**

Substance is not listed.

· **Carcinogenic categories**· **EPA (Environmental Protection Agency)**

Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

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

Substance is not listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

· **Massachusetts State Right To Know List**

628-63-7 | Amyl Acetate

· **New Jersey State Right To Know List**

628-63-7 | Amyl Acetate

· **Pennsylvania Hazardous Substances List**

628-63-7 | Amyl Acetate

· **California SCAQMD Rule 443.1 VOC's: No information available.**· **GHS label elements**

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

· **Hazard pictograms**

GHS02

· **Signal word Warning**· **Hazard statements**

H226 Flammable liquid and vapor.

· **Precautionary statements**

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P302+P352 IF ON SKIN: Wash with plenty of soap and water.

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

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**

USA

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Trade name: gL-Developer

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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** Product safety department
- **Contact:** Mr. Cole

- **Revision History:** New SDS
- **Date of preparation / last revision** 12/24/2015 / -

Abbreviations and acronyms:

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

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