

SAFETY DATA SHEET

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NEG FAST DEVELOPER

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name : Neg Fast Developer
Catalogue Number(s): 067001 - package 20 liters.

Recommended main uses for the substance or mixture: Developing solution of offset negative plates.

Manufacturer: IBF INDÚSTRIA BRASILEIRA DE FILMES
Address : Rua Lauro Muller, 116 10º andar CEP 22290 900 Rio de Janeiro Brasil
Tel.: (21) 2103-1000

SDS prepared by : IBF INDÚSTRIA BRASILEIRA DE FILMES
Rua Lauro Muller, 116 10º andar CEP 22290 900 Rio de Janeiro Brasil
Tel.: (21) 2103-1000

CHEMTREC PHONE: 1 800 11 424 9300
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2. HAZARDS IDENTIFICATION

Classification system adopted on the basis of ABNT NBR 14725-2.
Hazard information is based on information from the ingredients.

2.1 Classification of the mixture:

Corrosion/Skin irritation - Category 2, H315

2.2 Element GHS label:

Pictogram risk:



Word of warning:

Attention

Hazard statement:

H315 - May cause skin irritation.

Precautionary phrases: prevention

P264 - Wash thoroughly after handling.

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

Precautionary statements: emergency response.

P302 + P352 - IN CASE OF SKIN CONTACT: Wash with soap and water in abundance.

P332 + P313 - If skin irritation: Consult a doctor.

P362 + P364 - Remove all contaminated clothing and wash it before using it again.

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2.3 Other hazards:

None known

3. COMPOSITION AND INFORMATION ON INGREDIENTS

3.1 Mixture related information:

Product Name : Negative Fast Developer

This product is a mixture: Developing solution for lithographic printing.

Chemical nature: water-based solution.

3.2 Hazard ingredients:

Weight%	Component (CAS Registry No.)
1 / 5	Potassium Hydroxide (1310-58-3)
1 / 5	Pelargonic acid (112-05 - 0)
1 / 5	Phenoxyethanol (122-99-6)
1 / 5	Anionic Surfactant (confidential information)

Note: Exact percentage (concentration) of composition has been withheld as a trade secret is required.

3.3 Impurities contributing to the hazard:

Not identified.

4. FIRST AID MEASURES

4.1 First aid measures:

Inhalation: Transfer to airy atmosphere. Seek medical advice if symptoms persist.

Skin Contact: Rinse thoroughly with water. Remove all contaminated clothing.

Eye contact: Rinse with plenty of water keeping eyelid open.

Ingestion: Drink lots of water. Do not induce vomiting, seek medical attention.

After first aid refer urgently to the doctor.

4.2 The most important symptoms and effects, both acute and delayed:

The information is based on ingredients.

Irritation, cough, shortness of breath.

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), no additional symptoms and effects are anticipated.

4.3 Notes to physician:

The risk of this material are due to characteristics irritating to the skin, eyes, and when ingested or inhaled.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media:

Product is not flammable (aqueous system). Extinguishing media are water, foam or dry chemical. Do not throw water directly on the product.

5.2 Specific hazards of the substance or mixture:

After evaporation of the water can burn, forming toxic fumes.

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5.3 Safeguards team fire fighting:

Use protective equipment appropriate independent standalone environment.
Prevent contamination of surface water and groundwater with water from firefighting.

6. MEASURES SPILL OR LEAK

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 Advice for non-emergency: Keep people away. Isolate the area. Avoid contact with the material and stay downwind.

6.1.2 Advice for emergency responders: Use personal protective equipment. Avoid breathing vapor / mist / gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Pay attention to the accumulation of vapors that can form explosive concentrations. Vapors can accumulate in low areas.

6.2 Environmental precautions:

Avoid that the product reaches sewers, drains, water courses. Shut off leak.

6.3 Methods and materials for containment and cleaning:

Contain / absorb the spilled portion with earth dikes, vermiculite or sand. Transfer the material stagnated (solid and liquid) into suitable containers and delivered to an authorized manager for waste disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling.

Use in well ventilated area. Prevent inhalation of the product, contact with eyes, skin and clothing through proper protection. If accidental contact, the site should be washed immediately.

Emergency showers and eyewash should be available in appropriate locations.

Wash hands and face thoroughly after handling. Wash contaminated clothing before reuse. When using do not eat, drink or smoke.

Use goggles and gloves.

7.2 Conditions of safe storage, including any incompatibilities.

Store in a covered, well-ventilated, sheltered from sun light and away from heat sources or open flames.

Ensure that the storage location has temperature, pressure and humidity appropriate. Keep containers tightly closed when not in use.

Incompatibility: No information is available.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control Parameters:

The control limits are for substances.

Exposure Limits	ACGIH TLV	OSHA PEL
Potassium hydroxide	2 mg / m ³	not established
Pelargonic acid	25 ppm	not established
Phenoxyethanol	not established	not established
Anionic surfactant	not established	not established

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8.2 Engineering measures:

Recommended Decontamination Facilities: Eye wash, safety shower and washing facilities.

8.3 Personal protection measures:

Eye / face : It is recommended industrial hygiene practice to minimize eye contact. Use safety glasses with side shields or goggles broad vision.

Skin Protection: It is recommended industrial hygiene practice to minimize skin contact. Use impermeable gloves and protective clothing appropriate for the risk of exposure.

Respiratory Protection: Maintain a well ventilated place.

Thermal hazards: None known.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: colorless liquid

Odor: Slight odor weak

pH: 7.95 to 8.05

Melting / Freezing Point: Not available.

Initial boiling point and boiling range temperature: Not available.

Flash Point: Not applicable.

Evaporation Rate: Not available.

Flammability (solid, gas): Not applicable.

Lower limit / upper flammability or explosive limits: Not applicable.

Vapor Pressure: Not available.

Vapor Density: Not available.

Relative density: 1.033 to 1.037 g/cm³ at 20 ° C

Solubility in Water: Complete

-n-octanol/água Partition coefficient: Not available.

Auto-ignition temperature: Not available.

Decomposition Temperature: Not available.

Viscosity: Not available.

10. STABILITY AND REACTIVITY

10.1 Reactivity:

In case of strong heating may form vapors. Can produce COx.

10.2 Stability:

Product chemically stable under ambient conditions.

10.3 Possibility hazardous reactions:

No information is available.

10.4 Conditions to avoid:

Strong heating.

10.5 Incompatible materials:

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No information is available.

10.6 Hazardous decomposition:

Thermal decomposition may produce COx.

11. TOXICOLOGICAL INFORMATION

The information mix refer to the toxicological data of hazardous ingredients of the mixture based on information from manufacturers.

11.1 Acute toxicity:

Pelargonic acid

Oral LD50, Rat > 5,000 mg / kg

Irritating to respiratory system.

Irritating to eyes.

No known significant effects or critical hazards.

Irritating to the skin.

Phenoxyethanol

Ingestion

Low toxicity if swallowed. Are likely to cause injury by accidental ingestion of small amounts of the product, however, swallowing larger amounts may cause injury.

LD50, Rat 1,840 mg / kg

Aspiration hazard

Based on the physical properties, it is unlikely that may have a risk of aspiration.

Dermal

It is unlikely that prolonged contact with the skin result in absorption of harmful amounts. Repeated contact with skin may result in absorption of harmful amounts. Excessive exposure may cause hemolysis, thereby impairing oxygen transport by the blood.

LD50, Rabbit > 2,214 mg / kg

Inhalation

Exposure to vapor at room temperature is minimal due to low volatility. Vapor from heated material or mist may cause respiratory irritation and other effects. For narcotic effects: Relevant data not available.

No deaths occurred at this concentration. LC50, 6 h, Aerosol, Rat 1 mg / l

Potassium hydroxide

Oral: LD50 275 mg kg (rat).

LD50 500 mg / kg (rabbit).

Dermal LD50 one, 35 mg / kg (rabbit), 40 / kg (mouse). The LD50 values can be discussed. DLO 500 mg (rabbit) with 10% solution. Rabbit skin - 500mg for 24 hours causes severe irritation. Ceiling value for dust in the air: 2mg / m³ (source ACGIH 1999). NOTE: Even weak solutions are corrosive and can cause serious damage.

11.2 corrosion / irritation:

Pelargonic acid

Skin irritation and burns.

Phenoxyethanol

It is likely that prolonged exposure to cause significant skin irritation. May cause more severe response on covered skin (under clothing, gloves).

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Potassium hydroxide

Great caustic effect on skin and mucous membrane.

11.3 Serious eye damage / eye irritation:

Pelargonic acid

Causes eye irritation. Causes serious eye damage.

Phenoxyethanol

May cause moderate eye irritation. May cause moderate corneal injury.

Potassium hydroxide

Caustics.

11.4 Respiratory or skin sensitization:

Pelargonic acid

Skin irritation.

Phenoxyethanol

Skin

Did not cause allergic skin reactions when tested in guinea pigs. Did not cause allergic reactions when tested in humans.

Respiratory

There were no specific data relevant to the evaluation.

Potassium hydroxide

No effects Sensitivity

11.5 Germ cell mutagenicity:

Pelargonic Acid - Information not available

Phenoxyethanol - The genetic toxicity studies "in vitro" were negative. Animal genetic toxicity studies were negative.

11.6 Carcinogenesis:

Pelargonic Acid - Information not available

Phenoxyethanol - There were no specific data relevant to the evaluation.

Carcinogenic rating (components present at 0.1% or more):

- International Agency for Research on Cancer (IARC): none
- American Conference of Governmental Industrial Hygienists: none
- National Toxicology Program (NTP): none
- Security Management and Occupational Health - OSHA: None

11.7 Reproductive toxicity:

Pelargonic Acid - Information not available

Phenoxyethanol - In animal studies, repeated exposures had no effect on reproduction.

11.8 Toxicity to target specific organs - single exposure:

Pelargonic Acid - Information not available

11.9 Toxicity to target specific organs - repeated exposure:

Pelargonic Acid - Information not available

Phenoxyethanol - In animals, effects have been reported on the following organs: Blood. Rim. Liver. Thyroid. Airway.

Potassium hydroxide - The chronic effect may consist of multiple areas of skin destruction or primary irritant dermatitis. Simultaneously, the inhalation spray or droplets of product may give rise to different degrees of irritation or damage to the tissues of the airways and increased susceptibility to respiratory disease. The health

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condition can be aggravated by overexposure.

11:10 Aspiration hazard:

Pelargonic Acid - Information not available

Phenoxyethanol - Based on the physical properties, it is unlikely that may have a risk of aspiration.

Composition	LD50 (oral - rat)
Potassium hydroxide	275 mg / kg
Phenoxyethanol	1.840 mg / kg
Pelargonic Acid	> 5000 mg/kg

12. ECOLOGICAL INFORMATION

The mixture information refers to data of hazardous ingredients of the mixture based on the information of the manufacturer.

12.1 Ecotoxicity:

Pelargonic acid

No known significant effects or critical hazards.

Phenoxyethanol

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 > 100 mg / L in most sensitive species).

Acute and Prolonged Toxicity to Fish

LC50, fathead minnow (*Pimephales promelas*), flow-through, 96 h: 344 mg / l

Acute Toxicity to Aquatic Invertebrates

EC50, water flea (*Daphnia magna*), 48 h, immobilization: > 500 mg / l

Toxicity to Aquatic Plants

EbC50, *Scenedesmus subspicatus* (new name *Desmodesmus subspicatus*), static, inhibiting the growth of biomass, 72 h > 500 mg / l

Toxicity to microorganisms

EC50; bacteria, 17 h: 880 mg / l

Value Chronic Toxicity Fish (CHV)

fathead minnow (*Pimephales promelas*), flow-through, 34 d, mortality, NOEC: 23 mg / l LOEC: 50 mg / l

Chronic Toxicity Value Aquatic Invertebrates

Water flea (*Daphnia magna*), static renewal, 21 d, reproduction, NOEC: 9.43 mg / l, LOEC: 22.5 mg / l

12.2 Persistence and degradability:

Pelargonic acid

No known significant effects or critical hazards.

Phenoxyethanol

Material is readily biodegradable. Passed the test (s) for ready biodegradability OECD.

Stability in Water (Half-Life): > 1; 50 ° C, pH: 7; Estimate

OECD Biodegradation Tests: Biodegradation	Exposure Time	Method	Interval 10 days
90%	28 d	Test "OECD 301F"	overcome
> 90%	15 d	Test "OECD" 301A	overcome

Biological Oxygen Demand (BOD):

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BOD 5:	BOD10:	BOD 20:	BOD 28:
22%	71%	80%	

Chemical Oxygen Demand: 1.55 mg/mg₂, 12 mg / mg

Theoretical Oxygen Demand: 2.18 mg / mg

12.3 Bioaccumulative potential:

Pelargonic acid

No known significant effects or critical hazards.

Phenoxyethanol

Bioaccumulation: Bioconcentration potential is low (BCF <100 or Log Pow <3).

Partition coefficient n-octanol/water (log Pow): 1.2 Measured

Bioaccumulation factor: 0.35

12.4 Mobility in soil:

Pelargonic acid

No information available.

Phenoxyethanol

Mobility in soil: Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient, soil organic carbon / water (Koc): 40.74 Measured

Henry's law constant: 2.0 E-07 atm * m³/mol; 25 ° C Measured

Distribution in Environment: Fugacity Model Mackay Level 1:

Air Water. Sediment Biota Earth

99%

Results of PBT and vPvB

This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.5 Other adverse effects:

Pelargonic acid

Discharge into the environment must be avoided.

Phenoxyethanol

This substance is not listed in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

13. CONSIDERATIONS DISPOSAL

13.1 Methods recommended for disposal:

The discharge, treatment or disposal may be subject to national, state and local laws. Do not discharge into drains, soil or any water course. All disposal practices must be in compliance with all local laws and regulations, state / municipal and federal. May require the approval of the licensing authority and may require pretreatment. If allowed, refer to an authorized manager for waste disposal. Packaging that can not be fully sanitized should receive the same treatment applied to the product. Recondition or dispose of empty container in accordance with government regulations.

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14. TRANSPORT INFORMATION

Road and Rail: DOT.

Not regulated

Maritime Transport: IMDG

Not regulated

Air Transport: ICAO / IATA

Not regulated

15. REGULATIONS

Pelargonic Acid

United States inventory : All components are listed or exempted. (TSCA 8b)

HCS Classification Irritating material

U.S. Federal regulations SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: Nonanoic acid; octanoic acid; capric acid.

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:

Nonanoic acid: Immediate (acute) health hazard; octanoic acid: Immediate (acute) health hazard, Delayed (chronic) health hazard; capric acid: Immediate (acute) health hazard, Delayed (chronic) health hazard

SARA 313 : No products were found.

CERCLA: Hazardous substances: No products were found.

16. OTHER INFORMATION

Important information, but not specifically described in the previous sections.

This information document is in accordance with the NBR 14725: 2014 Part 4.

Approval data: 22 June 2012.

Last revision: 11 August 2016.

Review: 4

References:

SDS from suppliers of substances.

United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS) – 6th Edition.

Captions and abbreviations:

ANTT - National Agency for Land Transport

IMDG - International Maritime Dangerous Goods

ICAO / IATA - International Civil Aviation Organization / International Air Transport Association.

LC50 - lethal concentration for 50% of the test animals.

LD50 - lethal dose 50%

ACGIH - American Conference of Governmental Industrial Hygienists, Inc.

TLV-STEL: Narrow Tolerance - short time (15 minutes maximum).

TLV-TWA: tolerance limit - time weighted average

OSHA - Occupational Safety and Health Administration

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H-Statements mentioned in section 2: H315 - Causes skin irritation

The product should be stored, handled and used in accordance with proper industrial hygiene practices and in conformity with legal regulations.

The information contained herein is provided without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make their own decisions as to the applicability and completeness of such information, taking into account all possible sources, the correct use and disposal of materials, safety and health of their employees and customers and the protection of the environment.