

## SAFETY DATA SHEET

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VIOLET WASH OUT SOLUTION

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Violet Wash out solution

Catalogue Number(s): 067337 - package 20 liters

Recommended main uses for the substance or mixture: Solution for development of offset plates for printing.

Manufacturer: IBF - INDÚSTRIA BRASILEIRA DE FILMES

Address: Rua Lauro Muller, 116 10º andar CEP 22290 900 Rio de Janeiro Brasil

Tel.: 55 21 2103-1000

SDS prepared by : IBF INDÚSTRIA BRASILEIRA DE FILMES

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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 and skin irritation - Category 3, H316

Serious eye damage - Category 1, H318;

Toxicity for certain target organs - exp. Single - Category 2, H371.

#### 2.2 Element GHS label:



#### Word of warning:

Danger

#### Sentence of danger:

H316 - Causes mild skin irritation.

H318 - Causes serious eye irritation.

H371 - May cause damage to organs if swallowed.

#### Precautionary statements: Prevention.

P260 - Do not inhale dust, fumes, gas, mist / vapors / spray.

P264 - Wash thoroughly after handling.

P270 - Do not eat, drink or smoke while using this product.

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

#### Precautionary statements: emergency response.

P332 + P313 - If skin irritation occurs: Get medical attention.

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P305 + P351 + P338 - IN CASE OF EYE CONTACT: Rinse thoroughly with water for several minutes. In the case of use of contact lenses, remove them if it is easy. Continue rinsing.

P310 - Contact a TOXICOLOGICAL INFORMATION CENTER or doctor.

P308 + P311 - IF exposed or concerned: Contact a TOXICOLOGICAL INFORMATION CENTER or doctor.

**Precautionary statements: storage.**

P405 - Store in a lockable room.

**Precautionary statements: disposal.**

P501 - Dispose of contents / container in local licensed by the environmental agency.

### 2.3 Other hazards:

None known.

## 3. COMPOSITION AND INFORMATION ON INGREDIENTS

**Product Name:** Violet Wash out solution

**This product is a mixture:** Wash solution thermal lithographic printing plates.

**Chemical nature:** water-based solution.

**Weight% Component (CAS Registry No.)**

1 / 5 Ethoxylate surfactant ( 9014 – 85 - 1 )

1 / 5 Triethanolamine (102-71 - 6)

1 / 5 Amina ethoxylate grease (61791-26 - 2)

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

## 4. FIRST AID MEASURES

### 4.1 First aid measures:

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

**Skin contact:** Rinse thoroughly with water for at least 15 minutes. Remove all contaminated clothing.

**Eye contact:** Rinse thoroughly with water, holding the eyelid open for at least 15 minutes.

**Ingestion:** Rinse mouth. Do not induce vomiting, seek medical attention.

After first aid urgently forward to the doctor.

### 4.2 Most important symptoms and effects, both acute and delayed:

None known.

### 4.3 Notes to physician:

The risk of this material is due to the characteristic of moderate irritation to skin and eyes.

## 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 water can burn, forming toxic and irritating gases. May form nitrogen oxides, carbon monoxide and carbon dioxide.

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### 5.3 Protective measures of the fire fighting team:

Use self protective equipment appropriate regardless of the environment.

Prevent contamination of ground and surface water with the fire-fighting water.

## 6. MEASURES SPILL OR LEAK

### 6.1 Personal precautions, protective equipment and emergency procedures.

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

**Advice for emergency responders:** Equipment use individual protector, protective eye / face protection and gloves.

### 6.2 Environmental precautions.

Avoid that the product reaches drains, sewers, watercourses. Sealed the leak.

### 6.3 Methods and materials for containment and cleaning.

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

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling.

Avoid contact with eyes, skin and clothing. Use with adequate ventilation.

Do not eat, drink or smoke while handling the product. Wash hands before personal hygiene.

### 7.2 Conditions of safe storage, including any incompatibilities.

Store in cool, dry and well ventilated area. Keep the container closed when not in use.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

### 8.1 Control Parameters:

The control limits are for substances.

Exposure Limits	ACGIH TLV	OSHA PEL
Ethoxylate surfactant	6300 mg/kg	not established
Triethanolamine	5 mg/m <sup>3</sup>	not established
Amina ethoxylate grease	not established	not established

### 8.2 Engineering measures:

Recommended Decontamination Facilities: Eyewash, safety shower and washing facilities. Use only with adequate ventilation.

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### 8.3 Personal protection measures:

**Eye / Face Protection:** It is recommended industrial hygiene practice to minimize eye contact. Wear safety glasses with side shields or goggles broad view.

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

**Respiratory protection:** A good local ventilation must be maintained. Under normal conditions, respirator protection is not necessary.

**Thermal hazards:** None known.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Lightly brown liquid

Odor: Slight odor weak

pH: 8.90 to 9,10

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: 1.013 to 1.015 g/cm<sup>3</sup> 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

On intense heating may form vapors.

### 10.2 Stability

Chemically stable product at ambient conditions. The decomposition by heating or fire conditions can form oxides of nitrogen, carbon monoxide and carbon dioxide.

### 10.3 Possibility dangerous reactions

There is no information available.

### 10.4 Conditions to be avoided

Strong heating.

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### 10.5 Incompatible materials

#### **Triethanolamine.**

Avoid contact with: Nitrites. Strong acids. Strong oxidizers. The product can potentially react with various halogenated organic solvents, resulting in increased temperature and / or pressure. Corrosive when wet. The heating above 60 ° C in the presence of aluminum can result in corrosion and generation of flammable hydrogen gas. Avoid unintended contact with: Halogenated Organic.

#### **Ethoxylate surfactant.**

Reacts with hydroxyl compound, dehydrating and oxidizing agents.

### 10.6 Hazardous decomposition products

Thermal decomposition can produce nitrogen oxide, carbon dioxide, aldehydes. Can liberate flammable hydrocarbon fragments.

## 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:

#### **Ethoxylate surfactant**

LD50, oral, rat - 6,300 mg / kg

LC50, inhalation, rat, 1 hr -> 20 mg / l

LD50, dermal, rabbit -> 2000 mg / kg (estimated)

#### **Triethanolamine**

LD50, oral, rat > 4000 mg / kg

LD50, dermal, rabbit > 2000 mg / kg

#### **Amine ethoxylate grease**

LD50, oral, rat - 620 mg / kg

LD50, dermal, rat -> 10,000 mg / kg

### 11.2 Corrosion / skin irritation:

#### **Ethoxylate surfactant**

Mild skin irritation.

#### **Triethanolamine**

LD50, Rabbit > 2,000 mg / kg

Prolonged contact may cause skin irritation with local redness.

The repeated contact may cause skin burns. Symptoms may include pain, severe redness, swelling and injury to tissues of the human body.

#### **Amine ethoxylate grease**

Moderately irritating.

### 11.3 Serious eye damage / irritation:

#### **Ethoxylate surfactant**

Eye irritation. Data on irritation based on estimates

#### **Triethanolamine**

May cause severe eye irritation.

May cause severe corneal injury.

#### **Amine ethoxylate grease**

Moderately irritating.

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### **11.4 Respiratory sensitization or skin:**

No information available.

### **11.5 Germ cell mutagenicity:**

No information available.

### **11.6 Carcinogenesis:**

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:**

No information available.

### **11.8 toxicity for specific target organs - single exposure:**

No information available.

### **11.9 toxicity for specific target organs - repeated exposure:**

No information available.

### **11.10 Aspiration hazard:**

No information available.

## **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:**

#### **Acute toxicity to aquatic environment**

##### **Ethoxylate surfactant**

LC50 (96 h): 52 mg / l Species: Turbot (*Scophthalmus maximus*).

LC50 (48h): 166 mg / l Species: *Acartia tonsa*.

EC50 (72 h) 105 mg / l Species: *Skeletonema costatum*.

LC50 (d 10): 553 mg / kg sedimenting; Species: *Corophium volutator*.

##### **Triethanolamine**

#### **Acute toxicity to fish.**

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

May increase pH of aquatic systems to > pH 10 which may be toxic to aquatic organisms.

LC50, *Pimephales promelas* (fathead minnow), flow-through test, 96 h, 11,800 mg / L, Test Guides OECD 203 or equivalent

#### **Acute toxicity to aquatic invertebrates.**

EC50, *Ceriodaphnia dubia* (Moorhen fly), static test, 48 h, 609.9 mg / L, Test Guides OECD 202 or equivalent.

#### **Acute toxicity to algae / aquatic plants**

ErC50, alga *Scenedesmus* sp, static test, 72 h, inhibit the growth rate of 512 mg / L, Test Guides OECD 201 or equivalent test substance.: Product neutralized

#### **Toxicity to bacteria**

EC50, activated sludge, 3 h, > 1,000 mg / L, OECD Test 209

#### **Chronic toxicity to aquatic invertebrates**



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NOEC Daphnia magna (water flea Daphnia or) semi-static test, 21 d, number of offspring, 16 mg / L  
LOEC (Lowest Observed Effect Concentration), Daphnia magna (water flea Daphnia or) semi-static test, 21 d, number of offspring, 31 mg / L.

### **Grease amine ethoxylate**

LC50 1.95 mg / l (96 h, Brachydanio rerio)

EC50 9.91 mg / l (3h, biological sludge)

### **12.2 Persistence and degradability:**

#### **Triethanolamine**

**Biodegradation:** Material is readily biodegradable. He passed the test (s) for ready biodegradability OECD. Material is ultimately biodegradable. It reaches more than 70% biodegradation in OECD test for inherent biodegradability.

10-day interval: Approved

**Biodegradation:** 97%

**Exposure time:** 28 d

**Method:** OECD Test Guidelines 301A or equivalent

10-day interval: not applicable

**Biodegradation:** 89%

**Exposure time:** 14 d

**Method:** Test Guides OECD 302B or Equivalent

**Theoretical Oxygen Demand:** 2.04 mg / mg

#### **Photobleaching**

**Types of tests:** Half life (indirect photolysis)

**Sensitizer:** hydroxyl radicals

**Atmospheric half-life:** 0.097 d

**Method:** Estimated

### **Grease amine ethoxylate**

Biodegradability: 77.78% (28 d) easily degradable.

### **12.3 Bioaccumulative potential:**

#### **Triethanolamine**

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

Partition coefficient (n-octanol / water) (log Pow): -2.3 to 25 ° C measured

Bioconcentration factor (BCF): <3.9 Cyprinus carpio (Carp) 42 d measured.

### **12.4 Mobility in soil:**

#### **Triethanolamine**

The potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient (Koc): 10 Estimated

### **12.5 Other adverse effects:**

#### **Grease amine ethoxylate**

Chemical Oxygen Demand (COD):> 2,000 mg / l.

## **13. CONSIDERATIONS DISPOSAL**

The discharge, treatment or disposal may be subject to national, state and local laws. Download to sewer may require approval of the licensing authority and may require pretreatment.

If allowed, refer to an authorized manager for waste disposal.

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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.  
To minimize exposure read to Section 8 (Exposure Controls/Personal Protection) of the SDS.

### 14. TRANSPORT INFORMATION

**Road and Rail:** DOT.

Not regulated

**Maritime Transport:** IMDG

Not regulated

**Air Transport:** ICAO / IATA

Not regulated

### 15. REGULATIONS

Transport regulations in Brazil: Resolution 420:2004 - ANTT.

Decree 96.044/88 Department of Transportation in Brazil.

CONAMA 005/1993

NBR 10.004/2004 - Waste Classification.

IMDG Code - 2010 Edition - IMO (International Maritime Organization).

Dangerous Goods Regulations - 52nd Edition - IATA (International Air Transport Association).

Dangerous Goods by Road (ADR) - Applicable since January 1, 2011 - UNECE (United Nations Economic Commission for Europe).

### 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.**

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**References:**

SDS from suppliers of substances.

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

<http://echa.europa.eu/information-on-chemicals/registered-substances?>

<http://www.cdc.gov/niosh/>

[IUCLID] International Uniform Chemical Information: <http://ecb.jrc.it/esis/>

[HSDB] Hazardous Substances Data Bank: <http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB>

**Captions and abbreviations:**

ANTT - National Agency of Land Transport

IMDG - International Maritime Dangerous Goods

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

LD50 - lethal dose 50%

ACGIH - American Conference of Governmental Industrial Hygienists, Inc.

TLV - threshold limit value

OSHA - Occupational Safety and Health Administration





INDÚSTRIA BRASILEIRA DE FILMES

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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 are 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.