

SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

Approval Date : 18 May 2020

Last Revision : 06 October 2021

Print Date : 06/10/21

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IMAGE ENHANCER

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name: Image Enhancer

Catalogue Number(s): 072641 - package 0,250 liters

1.2 Relevant identified uses of the substance or mixture and uses advised against.

Recommended main uses for the substance or mixture: Solution to enhance the plate image directly in the print.

Uses advised against: Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

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

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

Tel.: 55 21 2103-1000

1.4 Emergency telephone number:

Available during office hours only. IN EMERGENCY, telephone: +55 (21) 2103-1000

CHEMTREC PHONE: 1 800 424 9300

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance mixture:

The product has not been classified as hazardous according to the legislation in force.

Classification according to Regulation (EC) No 1272/2008 as amended.

Not classified

2.2 Label elements Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture., The product does not require classification and labelling as hazardous according to CLP/GHS.

2.3 Other hazards:

Does not meet the PBT criteria (persistent / bioaccumulative / toxic).

Does not meet the vPvB criteria (very persistent / very bioaccumulative).

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixture related information:

No hazardous ingredients.

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SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

Inhalation: If symptomatic, move to fresh air. Get medical attention if symptoms persist.

Skin: In case of contact, immediately flush with plenty of water for at least 15 minutes.

Eye: Immediately flush the contaminated eye(s) with water for at least 10 minutes, while holding the eyelid(s) open. If a contact lens is present, remove it. Get medical attention.

Ingestion: If swallowed, only induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

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

None known.

4.3. Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing Media:

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

5.2 Specific hazards of the substance or mixture:

During fire, gases hazardous to health may be formed. Carbon dioxide and carbon monoxide.

5.3 Protective measures of the fire fighting team:

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Fire or excessive heat may produce hazardous decomposition products.

SECTION 6: ACCIDENTAL RELEASE MEASURES

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 downwind.

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

6.2 Environmental precautions.

Prevent runoff from entering drains, sewers or streams.

6.3 Methods and materials for containment and cleaning.

Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

Clean surface thoroughly to remove residual contamination.

6.4 Reference to other sections.

See Section 8 for recommendations on the use of personal protective equipment.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling.

Personal precautions: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

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Prevention of Fire and Explosion: No special measures necessary.

7.2 Conditions of safe storage, including any incompatibilities.

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from food, drink and animal feeding stuffs.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure controls: Not established

8.2. Exposure controls

Appropriate engineering controls: Use process enclosures, local exhaust ventilation, or other Engineering controls to maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye protection: Wear safety glasses with side shields (or goggles) and a face shield.

Hand protection: Seek the advice of the glove supplier as to the most suitable glove material. Avoid skin contact when mixing or handling the substance/preparation or a mixture by wearing impervious gloves and protective clothing appropriate to the risk of exposure.

Use chemical resistant gloves. In case of prolonged immersion or frequently repeated contact:

Material	Thickness	Breakthrough time
Nitrile rubber	> 0.38 mm	> 480
Neoprene	> 0.65 mm	> 240
butyl-rubber	> 0.36 mm	> 480

Avoid natural rubber gloves.

The protective gloves to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374. This recommendation applies only to the product stated in the Safety Data Sheet and supplied by us as well as to the purpose specified by us.

Respiratory protection: If engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be worn. If respirators are used, a program should be instituted to assure compliance with applicable federal, state, commonwealth, provincial, or local laws and regulations.

General health and safety measures: Safety shower, eye wash, washing facilities as appropriate to condition of use.

Environmental exposure controls: No information available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid

Colour: Blue

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Odour: slight

Odour Threshold: No data available - testing not performed

pH: 7,90 ± 0,10

Melting / Freezing Point: No data available - testing not performed

Initial boiling point and boiling range: No data available - testing not performed

Flash Point: does not flash

Evaporation Rate: No data available - testing not performed

Flammability (solid, gas): No data available - testing not performed

Upper explosion limit: No data available - testing not performed

Lower explosion limit: No data available - testing not performed

Vapour pressure: No data available - testing not performed

Vapour density: No data available - testing not performed

Specific gravity: 1,020 g/cm³ ± 0,005 at 20 ° C

Water solubility: soluble

Partition coefficient: -n-octanol/water: No data available - testing not performed

Auto-ignition temperature: No data available - testing not performed

Decomposition Temperature: No data available - testing not performed

Viscosity: No data available - testing not performed

Explosive properties: No data available - testing not performed

Oxidizing properties: No data available - testing not performed

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Stability

Stable under normal conditions.

10.3 Possibility dangerous reactions

Hazardous polymerization does not occur.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

No data available.

10.6 Hazardous decomposition products

None under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects.

Effects of Exposure

Toxicokinetics, metabolism and distribution

No data available

Acute toxicity:

No data available.

Corrosivity and irritation:

No skin irritation.

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Serious eye damage / irritation:

No eye irritation.

Sensitisation:

No data available.

Germ cell mutagenicity:

No information available.

Carcinogenicity:

No information available.

Reproductive toxicity:

No information available.

Specific target organ toxicity - single exposure:

No information available.

Specific target organ toxicity - repeated exposure:

No information available.

Aspiration hazard:

No information available.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity:

No data available.

12.2 Persistence and degradability:

No data available.

12.3 Bioaccumulative potential:

No data available.

12.4 Mobility in soil:

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects:

No information available.

Additional ecological information:

This product has not been tested for environmental effects.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Methods recommended for disposal:

This information is provided to assist users in the correct disposal of working solutions prepared and used to IBF specifications.

Working solution: Waste material is currently classified as hazardous under Commission Regulation (EU) No 1357/2014. The European Waste Catalogue Code is 09 01 02 Water based offset plate developer solutions. Dispose according to the local regulations or guidelines that apply to the category of waste. Ensure the use of properly authorized waste management companies.

Product containers: If thoroughly cleaned, preferably by rinsing at least three times with small quantities of water, waste product packaging may be consigned for recovery or disposal as non-hazardous waste. Whenever

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possible, minimize waste by using the rinsing water to make up the working solution. The European Waste Catalogue Code is 15 01 02 plastic packaging.

Waste product packaging contaminated by residues of hazardous contents should be consigned for disposal as hazardous waste. In this case, the European Waste Catalogue Code is 15 01 10 packaging containing residues of or contaminated by dangerous substances.

SECTION 14: TRANSPORTATION INFORMATION

ADR

14.1 UN Number:	Not regulated.
14.2 UN Proper Shipping Name:	Not regulated.
14.3 Transport Hazard Class(es):	Not regulated.
14.4 Packing Group:	Not regulated.
14.5 Environmental Hazards:	Not regulated.
14.6 Special precautions for user:	Not regulated.

RID

14.1 UN Number:	Not regulated.
14.2 UN Proper Shipping Name:	Not regulated.
14.3 Transport Hazard Class(es)	Not regulated.
14.4 Packing Group:	Not regulated.
14.5 Environmental Hazards:	Not regulated.
14.6 Special precautions for user:	Not regulated.

IMDG

14.1 UN Number:	Not regulated.
14.2 UN Proper Shipping Name:	Not regulated.
14.3 Transport Hazard Class(es)	Not regulated.
14.4 Packing Group:	Not regulated.
14.5 Environmental Hazards:	Not regulated.
14.6 Special precautions for user:	Not regulated.

IATA

14.1 UN Number:	Not regulated.
14.2 UN Proper Shipping Name:	Not regulated.
14.3 Transport Hazard Class(es)	Not regulated.
14.4 Packing Group:	Not regulated.
14.5 Environmental Hazards:	Not regulated.
14.6 Special precautions for user:	Not regulated.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: not applicable.

SECTION 15: REGULATORY INFORMATION

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

1907/2006/EC Article 59(1) - Candidate List of Substances Subject to Authorization

This mixture contains no ingredient which is subject to an authorization according to Regulation (EC) No. 1907/2006 (REACH).

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1907/2006/EC - Annex XIV - Substances Subject to Authorization

This mixture does not contain substances which are subject to an authorization according to Regulation (EC) No. 1907/2006 (REACH).

1907/2006/EC - Potential Substances of Very High Concern

This product does not contain substances of very high concern.

1907/2006/EC - Annex XVII - Restrictions on Certain Dangerous Substances

This mixture does not contain ingredients which are subject to restrictions according to Regulation (EC) No. 1907/2006 (REACH).

Detergents Regulation (648/2004) - Derogations and Banned or Restricted Detergent Surfactants

This mixture does not contain substances listed in Detergents Regulation (648/2004) - Derogations and Banned or Restricted Detergent Surfactants

Regulation of transport in Brazil: Resolution 5947:2021 – ANTT.

Brazilian Association of Technical Standards (ABNT) - NBR 14725 - Part 1-4.

15.2. Chemical safety assessment

Chemical safety assessment has not been performed.

SECTION 16: OTHER INFORMATION

16.1. Indication of changes

Corrected/updated:

Multiple changes due to format update

Minor changes may be present due to component or regulatory data updates

Review Safety Data Sheet before using product.

Approval data: 18 May 2020.

Last revision: 06 October 2021.

Review: 3

16.2. Key or legend to abbreviations and acronyms used in the safety data sheet

ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road;

CAS = Chemical Abstracts Service;

CLP = Classification, Labelling, and Packaging;

EC = European Commission;

EC50 = Effective Concentration 50%;;

EH40 = EH40/2005 Workplace Exposure Limits;

EINECS = European Inventory of Existing Commercial chemical Substances;

ELINCS = European List of Notified Chemical Substances;

GHS = Globally Harmonized System of Classification and Labelling of Chemicals;

HSA = Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents);

IARC = International Agency for Research on Cancer;

IATA = International Air Transport Association;

IC50 = Inhibitory Concentration 50%;

IMDG = International Maritime Dangerous Goods;

LC50 = Lethal Concentration 50%;

LD50 = Lethal Dose 50%;

mg/Kg = milligrams per Kilogram;

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mg/L = milligrams per Liter;

mg/m³ = milligrams per Cubic Meter;

PBT = Persistent, Bioaccumulative and Toxic substances;

ppm = parts per million;

REACH= Registration, Evaluation and Authorization of Chemicals;

RID = European Agreement concerning the International Carriage of Dangerous Goods by Rail;

vPvB = very Persistent, very Bioaccumulative substances

16.3. Methods used for classification of mixture according to Regulation (EC) No 1272/2008

The determination of classifications is derived via expert judgment and/or weight of evidence.

16.4. Relevant R- and H-phrases

The product has not been classified as hazardous according to the legislation in force.

16.5. Training advice

Review Safety Data Sheet before using product.

16.6. Further information

This Safety Data Sheet has been compiled and is solely intended for this product. The information is based upon the present state of our knowledge.

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.