

SAFETY DATA SHEET (REGULATION (EC) n° 1907/2006 - REACH)
Version : N°2 (17/10/2025)
Jacobi Carbons GmbH

Date : 14/11/2025 Page 1/12
Revision : N°18 (16/10/2025)

Resinex MX-1, MX-11, MX-111, MX-2, MX-21, MX-3, MX-3010, MX-5, MX-6 -

SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

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

1.1. Product identifier

Product name : Resinex MX-1, MX-11, MX-111, MX-2, MX-21, MX-3, MX-3010, MX-5, MX-6
Product code : .
UFI : E830-K04P-E00K-RGPF

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

Ion exchange resin and catalyst

1.3. Details of the supplier of the safety data sheet

Registered company name : Jacobi Carbons GmbH.
Address : De-Saint-Exupéry-Strasse 10.D-60549.Frankfurt am Main.Germany.
Telephone : +49 69 719 107 0. Fax : +49 3386 2139893.
msds@jacobi.net
www.jacobi.net

1.4. Emergency telephone number : DE : +49 (0)30 19240.

Association/Organisation : Giftnotruf Berlin.
Other countries : <https://echa.europa.eu/support/helpdesks>

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Serious eye damage, Category 1 (Eye Dam. 1, H318).

2.2. Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS05

Signal Word :

DANGER

Product identifiers :

EC 639-871-2

EC 614-895-6

Additional labeling :

STYRENE-DIVINYLBENZENE-COPOLYMER WITH TRIMETHYLAMINE GROUPS IN OH- FORM
STYRENE DIVINYLBENZENE COPOLYMER WITH SULFONATE GROUPS IN H+ FORM

Hazard statements :

H318

The synthetic polymer microparticles supplied is subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council.

This product contains min 20% synthetic polymer microparticles.

Causes serious eye damage.

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Precautionary statements - Prevention :

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

Precautionary statements - Response :

P305 + P351 + P338 IF IN EYES: 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/...

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) $\geq 0.1\%$ published by the European Chemicals Agency (ECHA) under article 59 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

The mixture does not contain substances $\geq 0.1\%$ with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

% w/w

Identification	Classification (EC) 1272/2008	Note	%
CAS: 7732-18-5 EC: 231-791-2 WATER			~ 50 %
CAS: 69011-18-3 EC: 639-871-2 STYRENE-DIVINYLBENZENE-COPOLYMER WITH TRIMETHYLAMINE GROUPS IN OH-FORM	GHS05 Dgr Eye Dam. 1, H318		15 - 35 %
CAS: 69011-20-7 EC: 614-895-6 STYRENE DIVINYLBENZENE COPOLYMER WITH SULFONATE GROUPS IN H+ FORM	GHS05 Dgr Eye Dam. 1, H318		15 - 35 %

Information on ingredients :

(Full text of H-phrases: see section 16)

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.
NEVER induce swallowing by an unconscious person.

4.1. description of first aid measures

In the event of exposure by inhalation :

Obtain medical attention if cough or respiratory symptoms develop.
Fresh air, rest.

In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.
Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.
If there is any redness, pain or visual impairment, consult an ophthalmologist.

In the event of splashes or contact with skin :

Watch out for any remaining product between skin and clothing, watches, shoes, etc.
Rinse with water and soap.
Remove contaminated clothes.
Obtain medical attention if irritation becomes apparent.

In the event of swallowing :

Seek medical attention, showing the label.
Do not induce vomiting.
Rinse mouth with water, leave on an empty stomach

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

No data available.

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

In case of accident or unwellness, seek medical advice immediately.

SECTION 5 : FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable methods of extinction

In the event of a fire, use :

- foam
- carbon dioxide (CO₂)
- sprayed water or water mist
- dry chemical agents

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO₂)
- sulphur dioxide (SO₂)
- nitrogen oxide (NO)
- nitrogen dioxide (NO₂)

5.3. Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Do not touch or walk through spilt material. Hazard of slipping on spilt product.

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Avoid any contact with the skin and eyes.
Keep unnecessary personnel away

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Prevent any material from entering drains or waterways.

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6.3. Methods and material for containment and cleaning up

Retrieve the product by mechanical means (sweeping/vacuuming).

6.4. Reference to other sections

See also sections 8 & 13

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

See section 8. Do not handle frozen product. In the event of freezing, allow the product to thaw progressively at room temperature before handling.

Fire prevention :

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid eye contact with this mixture at all times.

Ensure containment and adequate ventilation.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

Keep the container tightly closed in a cool, well ventilated place

Keep away from(incompatible materials) (section 10)

Recommended storage temperatures: 1 - 40 ° C. Avoid freezing and sun exposure.

Keep away from food and drink.

Storage

Store in the closed, original packaging.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No data available.

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Before handling powders or dust emission, wear mask goggles in accordance with standard ISO 16321.

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Prescription glasses are not considered as protection.
Provide eyewash stations in facilities where the product is handled constantly.

- Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.
Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.
Gloves must be selected according to the application and duration of use at the workstation.
Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.
Type of gloves recommended :
- PVC (polyvinyl chloride)
- Neoprene® (Polychloroprene)
- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))

- Body protection

Work clothing worn by personnel shall be laundered regularly.
After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Avoid inhaling dust.
Type of FFP mask :
Wear a disposable half-mask dust filter in accordance with standard EN149/A1.
Category :
- FFP2
Particle filter according to standard EN143 :
- P1 (White)

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state

Physical state : Solid in granules.
Appearance: Beads

Colour

black or amber

Odour

Odour threshold : Not stated.
None

Melting point

Melting point/melting range : Not specified.

Freezing point

Freezing point / Freezing range : Not stated.

Boiling point or initial boiling point and boiling range

Boiling point/boiling range : Not specified.

Flammability

Flammability (solid, gas) : Not stated.

Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) : Not stated.
Explosive properties, upper explosivity limit (%) : Not stated.

Flash point

Flash point interval : Not relevant.

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Auto-ignition temperature

Self-ignition temperature : Not specified.

Decomposition temperature

Decomposition point/decomposition range : Not specified.

pH

pH : 7.50 .

Neutral.

pH (aqueous solution) : Not stated.

Kinematic viscosity

Viscosity : Not stated.

Solubility

Water solubility : Insoluble.

Fat solubility : Not stated.

Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water : Not stated.

Vapour pressure

Vapour pressure (50°C) : Not relevant.

Density and/or relative density

Density : > 1

Relative vapour density

Vapour density : Not stated.

Particle characteristics

The mixture does not contain nanoforms.

Apparent bulk density (Packed) : 650 - 850 kg/m³

Particle size : 0.3 - 1.25 mm

9.2. Other information

No data available.

9.2.1. Information with regard to physical hazard classes

No data available.

9.2.2. Other safety characteristics

No data available.

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

In contact with strong oxidants.

10.4. Conditions to avoid

Avoid :

- formation of dusts

Dusts can form an explosive mixture with air.

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10.5. Incompatible materials

Keep away from :
- oxidising agents

10.6. Hazardous decomposition products

The thermal decomposition may release/form :
- carbon monoxide (CO)
- carbon dioxide (CO₂)
- sulphur dioxide (SO₂)
- nitrogen oxide (NO)
- nitrogen dioxide (NO₂)

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

11.1.1. Substances

a) Acute toxicity :

The product has not been tested. The given indication is derived from substances / products having a similar structure or composition.

STYRENE DIVINYLBENZENE COPOLYMER WITH SULFONATE GROUPS IN H⁺ FORM (CAS: 69011-20-7)

Oral route :
LD50 > 5000 mg/kg
Species : Rat

STYRENE-DIVINYLBENZENE-COPOLYMER WITH TRIMETHYLAMINE GROUPS IN OH⁻ FORM (CAS: 69011-18-3)

Oral route :
LD50 > 5000 mg/kg
Species : Rat

b) Skin corrosion/skin irritation :

No data available.

c) Serious damage to eyes/eye irritation :

Causes severe eye irritation, serious eye damage.

d) Respiratory or skin sensitisation :

No data available.

e) Germ cell mutagenicity :

No data available.

f) Carcinogenicity :

No data available.

g) Reproductive toxicant :

No data available.

h) Specific target organ systemic toxicity - single exposure :

No data available.

i) Specific target organ systemic toxicity - repeated exposure :

No data available.

j) Aspiration hazard :

No data available.

11.1.2. Mixture

11.1.2.1 Information on hazard classes

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a) Acute toxicity :

Oral route : No data available.
Dermal route : No data available.
Inhalation route (Dusts/mist) : No data available.

b) Skin corrosion/skin irritation :

No data available.

c) Serious damage to eyes/eye irritation :

May have irreversible effects on the eyes, such as tissue damage in the eye, or serious physical decay of sight, which is not fully reversible by the end of observation at 21 days.

Serious eye damage is typified by the destruction of cornea, persistent corneal opacity and iritis.

Causes severe eye irritation, serious eye damage.

d) Respiratory or skin sensitisation :

No data available.

e) Germ cell mutagenicity :

No data available.

f) Carcinogenicity :

No data available.

g) Reproductive toxicant :

No data available.

h) Specific target organ systemic toxicity - single exposure :

No data available.

i) Specific target organ systemic toxicity - repeated exposure :

No data available.

j) Aspiration hazard :

No data available.

11.1.2.2 Other information

11.2. Information on other hazards

Endocrine disrupting properties

The mixture does not contain any substance evaluated as an endocrine disruptor with effects on human health.

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

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12.6. Endocrine disrupting properties

The mixture does not contain any substance evaluated as an endocrine disruptor with environmental effects.

12.7. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Spent products should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

Codes of wastes (Decision 2014/955/EC, Directive 2008/98/EEC on hazardous waste) :

11 01 16 * Saturated or used ion exchange resins Wastes from chemical surface treatment and coating of metals and other materials, and hydrometallurgy of non-ferrous metals.

19 08 06 * Saturated or used ion exchange resins Waste from sewage treatment plants not previously specified.

19 09 05 Saturated or used ion exchange resins. Waste from waste management facilities, off-site wastewater treatment plants, and preparation of water for human consumption and water for industrial use.

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IMPORTANT:
The European Waste Codes above are provided for example purposes only and do not represent an exhaustive list. It is the responsibility of the waste owner to assign the generated waste to waste codes specific to industrial sectors and processes according to the European and local regulations.

SECTION 14 : TRANSPORT INFORMATION

Exempt from transport classification and labelling.

14.1. UN number or ID number

-

14.2. UN proper shipping name

-

14.3. Transport hazard class(es)

-

14.4. Packing group

-

14.5. Environmental hazards

-

14.6. Special precautions for user

-

14.7. Maritime transport in bulk according to IMO instruments

-

SECTION 15 : REGULATORY INFORMATION

MEASURES TO PREVENT THE SPREAD OF SYNTHETIC POLYMER MICROPARTICLES IN THE ENVIRONMENT

STORAGE: The product must be stored in its original packaging under the conditions mentioned in section 7.

USE: The product must be used in a container with sufficiently fine mesh openings to ensure its containment throughout its entire service life.

FILLING THE TANK: (1) Transfer the product into the service tank (vertical column, cartridge) using a hydraulic or pneumatic system. Hydraulic transfer using a hydro-ejector. (2) Manual transfer: Suspend the Big Bag above the manhole and transfer the resin into the tank via the Big Bag's discharge chute. Manually pour the product from 25 L bags into the tank. Use a funnel for tanks with a small top opening.

TANK EMPTYING: Hydraulically. Transfer of used product to closed Big Bags. Industrial waste disposal in accordance with current regulations (see also section 13).

EMPTY PACKAGING: Empty packaging (bags, drums, Big Bags) must be rinsed with water and the rinse water transferred to the service tank before recycling.

ADDITIONAL INSTRUCTIONS: (1) Industrial facilities: install resin traps at the outlet of the treated solution and at the sewer outlet. (2) Residential equipment cartridges: the supplier must have a collection and recycling system for used cartridges. (3) Accidental spillage of the product: immediately vacuum up and transfer the product to a closed container, such as a drum, then dispose of the waste through an approved channel (see also section 6).

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

Switzerland - VOC-Lenkungsabgabe

Incentive tax on VOCs. This product contains 0% VOC substance appearing on the positive lists of the above-mentioned regulation.

Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2023/707.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 2024/2564. (ATP 22)

Container information:

No data available.

Particular provisions :

No data available.

Restrictions applied under Title VIII of Regulation (EC) No. 1907/2006 (REACH):

The mixture contains at least one restricted substance under Annex XVII of Regulation (EC) No. 1907/2006 (REACH): <https://echa.europa.eu/substances-restricted-under-reach>. Please refer to Section 3 to identify the substance involved.

The synthetic polymer microparticles supplied is subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council.

Authorisations agreed under Title VII of Regulation (EC) No.1907/2006 (REACH):

The mixture does not contain any substance subject to authorisation according to Annex XIV of REACH Regulation (EC) No 1907/2006: <https://echa.europa.eu/fr/authorisation-list>.

Substances that deplete the ozone layer (EC Regulation No. 1005/2009, Montreal Protocol) :

The mixture does not contain any substance posing a risk to the ozone layer.

Persistent organic pollutants (POP) (Regulation (EU) 2019/1021):

The mixture does not contain a persistent organic pollutant.

PIC Regulation (EU) No 649/2012 concerning the export and import of hazardous chemicals (Rotterdam Convention):

The mixture is not subject to the Prior Informed Consent (PIC) procedure.

Explosives precursors :

The mixture does not contain any substance subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors.

15.2. Chemical safety assessment

Non Applicable

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SECTION 16 : OTHER INFORMATION

Wording of the phrases mentioned in section 3 :

H318 Causes serious eye damage.

Abbreviations and acronyms :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.

UFI : Unique formulation identifier.

ADR : Agreement concerning the international carriage of dangerous goods by road.

GHS05 : Corrosion

IATA : International Air Transport Association.

IMDG : International Maritime Dangerous Goods.

ICAO : International Civil Aviation Organisation

PBT: Persistent, bioaccumulable and toxic.

PIC: Prior Informed Consent.

POP: Persistent Organic Pollutant.

RID : Regulations concerning the International carriage of Dangerous goods by rail.

SVHC : Substances of very high concern.

WGK : Water Hazard Class.

The information contained in this safety data sheet is based on our current knowledge at the time of publication and is provided in good faith. It does not constitute any guarantee of specific product properties nor establish any contractual relationship. The user remains solely responsible for safe and compliant use of the product in accordance with current regulations.
