

SAFETY DATA SHEET

Chrometra AB ExM

Product codes: ER-30 range | Version: 2.0 | Issue date: 30.09.2026

Section 1: Identification

1.1. Product identifier

Product name: Chrometra AB ExM

Product code: ER-30 range

Product description: Fluorescent reactive-ester derivatives supplied as dry reagent or a thin dry film for covalent protein labelling.

REACH registration: Not applicable/required for the product as supplied; individual components may be exempt or below applicable tonnage thresholds.

1.2. Relevant identified uses and uses advised against

Recommended use: Laboratory reagent for covalent fluorescent labelling of proteins, antibodies and other primary-amine-containing biomolecules, including expansion-microscopy workflows; research use only.

Use descriptors: PROC15 – Use as laboratory reagent; PC21 – Laboratory chemicals; SU24 – Scientific research and development.

Uses advised against: Diagnostic, therapeutic, food, cosmetic, household or direct in vivo human/veterinary use. Not intended for administration to humans or animals.

CO008-SDS-ABExM-EN 202609

1.3. Details of the supplier of the safety data sheet

Company: Chrometra Scientific B.V.
Address: Industriepark 6
3300 Tienen
Belgium
Website: www.chrometra.com
Email: info@chrometra.com

1.4. Emergency telephone number

For medical emergencies, contact the Belgian Poison Centre: +32 (0)70 245 245 (24/7, Belgium). Outside Belgium, contact the applicable national poison centre. For product information, contact the supplier by email.

List of national toxicological centers:

NETHERLANDS	+31 88 755 8000 (24/7, healthcare professionals only)
FRANCE	+33 1 45 42 59 59 (24/7)
SWITZERLAND	145, international: +41 44 251 51 51 (24/7)
SPAIN	+34 91 562 04 20 (24/7)
ITALY	+39 06 3054 343 (24/7)
UNITED STATES	+1 800 222 1222 (24/7)

Section 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Provisional classification according to Regulation (EC) No 1272/2008 (CLP): Acute Toxicity Category 4 (oral), Skin Irritation Category 2, Eye Irritation Category 2 and Specific Target Organ Toxicity, Single Exposure Category 3 (respiratory tract irritation). The range contains multiple dye-reactive-ester structures; the classification must be confirmed for each catalogue item from its final identity, purity and test data.

2.2. Label elements

Hazard pictograms	
Signal word	Warning
Hazard statements	H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
Precautionary information	P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash hands and exposed skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/protective clothing/eye protection/face protection. P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell. P330 Rinse mouth. P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332+P313 If skin irritation occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention. P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container through an approved hazardous-waste route.

2.3. Other hazards

Reactive esters acylate primary amines and may react with proteins in skin, eyes and mucous membranes. Fluorophore identity, charge, counterions and linker structure vary across the ABExM range, and complete toxicological data are generally unavailable. Handle every variant as a hazardous, biologically reactive laboratory chemical and prevent exposure.

The product is not expected to meet PBT or vPvB criteria. No component is currently known to have endocrine-disrupting properties under the applicable REACH criteria.

Formulation limitation: this SDS covers the ABExM reagent as supplied as a dry solid or thin dry film. Reconstituted stock solutions inherit the hazards of the selected solvent. Products supplied in DMSO, DMF, methanol or another solvent require formulation-specific classification and documentation.

Section 3: Composition/Information on ingredients

3.2. Mixtures

Component	Identifier	Typical concentration
Fluorescent reactive-ester derivative (ABExM variant)	Structure and CAS vary by fluorophore; may be proprietary or not assigned	Typically $\geq 90\%$ of dry solids
Counterions, residual solvents, stabilizers or impurities, if present	Identity and concentration formulation-dependent	Typically $\leq 10\%$

Section 4: First-aid measures

4.1. Description of first-aid measures

IN CASE OF INHALATION: Move to fresh air and keep comfortable for breathing. Obtain medical advice if cough, irritation, breathing difficulty or other symptoms occur. Call a poison centre or physician if exposure was significant.

IN CASE OF SKIN CONTACT: Immediately remove contaminated clothing. Wash with soap and plenty of water for at least 15 minutes. Seek medical advice if irritation develops or persists. Wash contaminated clothing before reuse.

IN CASE OF EYE CONTACT: Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing and obtain medical advice.

IN CASE OF INGESTION: Rinse mouth. Do not induce vomiting. Call a poison centre or physician if unwell. Never give anything by mouth to an unconscious person.

FIRST AIDER PROTECTION: Avoid direct contact. First-aiders should wear suitable gloves, protective clothing and eye/face protection; use respiratory protection where airborne dust or aerosol is possible.

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

May be harmful if swallowed. Causes skin and serious eye irritation. Dust or aerosol may irritate the respiratory tract. Reactive esters can covalently modify proteins; effects may be delayed and variant-specific toxicological information is limited.

4.3. Indication of immediate medical attention and special treatment needed

Treat symptomatically. No specific antidote is known. Show this SDS, the product label and the identity of the solvent used for reconstitution to medical personnel.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Water spray, alcohol-resistant foam, dry chemical or carbon dioxide, selected for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Combustion or thermal decomposition may generate carbon oxides, nitrogen oxides, sulfur oxides, hydrogen halides and other irritating or toxic fumes, depending on fluorophore and counterion.

5.3. Advice for fire-fighters

Wear self-contained breathing apparatus and full protective clothing. Prevent contaminated firefighting water from entering drains where practicable.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Restrict access and ventilate the area. Avoid raising dust and prevent skin or eye contact. Wear a laboratory coat, suitable gloves and chemical splash goggles; use an appropriately selected particulate respirator if dust cannot be controlled.

6.2. Environmental precautions

Avoid release to drains, surface water and soil. Ecological properties vary with fluorophore structure and have generally not been determined.

6.3. Methods and materials for containment and cleaning up

Do not dry sweep. Carefully collect dry material with damp disposable absorbent or a suitable HEPA-filtered method. Absorb solutions with inert material compatible with the solvent. Place all residue and cleaning material in a sealed, labelled hazardous-waste container. Clean with water and laboratory detergent after bulk recovery.

6.4. Reference to other sections

See Section 8 for personal protection measures and Section 13 for disposal considerations.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handle only by trained personnel in accordance with good laboratory practice. Ensure adequate ventilation. Avoid contact with skin and eyes. Avoid breathing vapours, mist or dust, where applicable. Do not eat, drink or smoke while handling the product. Wash hands thoroughly after handling. Keep the container closed when not in use.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Keep tightly closed, dry and protected from moisture and light. Store at the temperature stated on the product label or technical data sheet. Reactive esters hydrolyse in humid or aqueous conditions; prepare solutions immediately before use unless product instructions state otherwise.

Specific end use: Research-use protein- and antibody-labelling reagent only.

Incompatible materials: Water, humidity, strong acids, strong bases, oxidizing agents and nucleophiles such as primary amines. Protect fluorescent reagents from intense light.

Section 8: Exposure controls/personal protection

8.1. Control parameters

No occupational exposure limits have been established. Apply the lowest practicable exposure principle and prevent exposure to dust.

8.2. Exposure controls

Engineering controls: General laboratory ventilation plus a chemical fume hood, ventilated balance enclosure or equivalent local exhaust for open handling and reconstitution.

General hygiene measures: Wash hands after handling. Remove contaminated PPE before leaving the work area.

Hand protection: Chemical-resistant disposable gloves (e.g., nitrile). Select glove material and breakthrough time for both the reagent and reconstitution solvent; change gloves immediately after contamination.

Eye/face protection: Safety glasses with side shields or chemical splash goggles, as appropriate.

Skin/body protection: Laboratory coat and closed footwear.

Respiratory protection: Normally not required where engineering controls prevent airborne exposure. If dust or aerosol cannot be controlled, use an appropriately selected and fitted particulate respirator in accordance with local requirements.

Environmental exposure controls: Prevent uncontrolled discharge to drains or surface water.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Solid; typically a coloured powder or thin dry film
Colour:	Product-dependent; coloured/fluorescent

Odour:	Odourless or no characteristic odour
Melting/freezing point:	Not determined; reactive fluorophore derivative may decompose
Boiling point/flammability/flash point:	Not applicable or not determined for the dry low-mass reagent
Solubility:	Typically soluble in anhydrous DMSO or DMF; aqueous solubility and hydrolytic stability are variant-dependent
pH:	Not applicable to dry product; reactive-ester stability is pH-dependent after dissolution
Vapour pressure/density/viscosity	Not applicable or not determined
Partition coefficient/auto-ignition/decomposition :	Not determined
Particle characteristics:	Powder or amorphous dry film; particle-size distribution not determined

9.2. Other information

Excitation/emission maxima, molar absorption and fluorescence quantum yield depend on the ABExM fluorophore; consult the variant-specific technical data sheet.

Section 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction expected under recommended conditions.

10.2. Chemical stability

Expected to be stable when stored as labelled in a tightly closed container protected from light and moisture. The reactive ester hydrolyses after contact with water.

10.3. Possibility of hazardous reactions

Hydrolysis occurs in the presence of water; vigorous or hazardous polymerisation is not expected under normal laboratory conditions.

10.4. Conditions to avoid

Heat, humidity, water before intended use, intense light and dust generation.

10.5. Incompatible materials

Water, strong acids, strong bases, oxidizing agents and nucleophilic compounds, including primary amines.

10.6. Hazardous decomposition products

Carbon oxides, nitrogen oxides, sulfur oxides, hydrogen halides and other irritating/toxic decomposition products may form, depending on variant.

Section 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity:	Provisionally classified as Acute Toxicity Category 4 (oral), H302. No product-specific LD ₅₀ data are available.
Skin corrosion/irritation:	Provisionally classified as Skin Irritation Category 2, H315. Reactive esters may acylate skin proteins.
Serious eye damage/irritation:	Provisionally classified as Eye Irritation Category 2, H319. Dust or solution may cause marked irritation.

Respiratory/skin sensitisation:	Not classified because data are insufficient. Protein reactivity creates a theoretical sensitisation concern; avoid repeated exposure.
Mutagenicity/carcinogenicity / reproductive toxicity:	Not classified; no reliable product-specific data are available.
STOT – single/repeated exposure:	Single exposure: provisionally classified as Category 3, H335, for respiratory tract irritation. Repeated exposure: not classified; no reliable product-specific data are available.
Aspiration hazard:	Not applicable to the solid product.
Likely routes:	Ingestion, inhalation of dust or aerosol, and eye or skin contact.

11.2. Information on other hazards

No component is currently known to have endocrine-disrupting properties, subject to confirmation of each ABExM variant. Other toxicological effects are not known.

Section 12: Ecological information

12.1. Toxicity

No product-specific aquatic toxicity data available.

12.2. Persistence and degradability

No product-specific data. Hydrolysis of the reactive ester is expected in water; persistence of the resulting fluorophore derivative is structure-dependent.

12.3. Bioaccumulative potential

Not determined; fluorophore charge and lipophilicity vary and some variants may have bioaccumulative potential.

12.4. Mobility in soil

Not determined; mobility varies with charge, counterion and hydrolysis products.

12.5. Results of PBT and vPvB assessment

Not expected to meet PBT or vPvB criteria, subject to variant-specific confirmation.

12.6. Endocrine disruption

No known endocrine-disrupting properties, subject to variant-specific confirmation.

12.7. Other adverse effects

Avoid environmental release. Fluorophores and their hydrolysis products may be persistent depending on structure.

Section 13: Disposal considerations

13.1. Waste treatment methods

Dispose of unused reagent, stock solutions, reaction residues and contaminated packaging as hazardous laboratory chemical waste through an approved route. Do not discharge to drains. Waste classification must consider the fluorophore, hydrolysis products, solvent, buffer, labelled biomolecule and other reaction components. Empty containers may retain reactive residue.

Section 14: Transport information

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not expected to be regulated as dangerous goods under ADR/RID, IMDG or IATA in the dry quantities normally supplied, subject to confirmation for each variant and any solvent formulation

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not classified as a marine pollutant/environmentally hazardous substance

14.6. Special precautions for user

Keep sealed, dry, protected from light and at the labelled storage temperature. Follow any carrier restrictions applicable to coolant or solvent used in the shipment

14.7. Maritime transport in bulk

Not intended for transport in bulk; not applicable

Section 15: Regulatory information

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

Prepared for supply and use in the European Union under REACH and CLP. No component is presently known to be present above applicable thresholds as an SVHC or REACH Annex XIV substance. Confirm the exact fluorophore, reactive group, counterions and impurities against the Candidate List, Annex XIV and Annex XVII for every catalogue variant.

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

Section 16: Other information

Version / revision information:

Version: 2.0

Issue date: 30.09.2026

Additional information:

Classification method: Conservative expert judgement for the product family; mixture/product variants have not been tested as a whole.

Abbreviations: ADR: road transport; CLP: Classification, Labelling and Packaging; IATA: air transport; IMDG: maritime transport; PBT: persistent, bioaccumulative and toxic; REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals; vPvB: very persistent and very bioaccumulative.

Training advice: Users should be trained in safe handling of amine-reactive fluorescent chemicals, anhydrous solvents, spill response and hazardous-waste segregation.

Disclaimer:

The information provided in this safety data sheet reflects the information available to Chrometra at the date of issue and is intended to support the safe handling, storage, use and disposal of the product. It does not constitute a specification or guarantee of specific product properties.

For research use only. Not intended for diagnostic or therapeutic use.

End of Safety Data Sheet