



DYES – DISPERSE

Other Names See below

Disperse dyes are a class of water-insoluble dyes that penetrate synthetic fibers and are held in place by physical forces without forming chemical bonds.

CAS Number	Substance
2475-45-8	C.I. Disperse Blue 1
2475-46-9	C.I. Disperse Blue 3
3179-90-6	C.I. Disperse Blue 7

Uses in the Supply Chain

Within the apparel and footwear supply chains, disperse dyes are often found in the dyeing process for synthetic textiles, including polyester, acetate, and polyamide.

List continued in "Additional Information"

May Be Found In • Dyed Textiles

Why Disperse Dyes are Restricted

- Legislation in major markets around the world restricts the presence of some disperse dyes in finished products.
- The main sources of exposure to restricted disperse dyes identified for both consumers and workers are dermal absorption.
- The restricted disperse dyes are suspected of causing allergic reactions.
- Some disperse dyes may cleave to form carcinogenic amines.
- Chemical hazard information for many chemicals can be found at the following external databases:
 - GESTIS Substance Database: [Here \(external link\)](#)
 - US National Library of Medicine: [Here \(external link\)](#)
 - US OSHA Occupational Chemical Database: [Here \(external link\)](#)

Sourcing Compliant Materials from Your Suppliers

- Contact your suppliers and explain that you require their manufactured materials to be compliant with the current AFIRM RSL limits.¹
- Require suppliers to submit a confirmation of material compliance or a test report from a third-party laboratory.
- When materials are received, consider performing risk-based testing to ensure the current AFIRM RSL limits are met.
- Share this information sheet with your synthetic textile material suppliers so they have full visibility and understand your sourcing requirements.

Sourcing Compliant Formulations from Your Chemical Suppliers

- For all formulations, request SDS documentation that meets current GHS requirements.



Chemical Information Sheet

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- Contact your suppliers and explain that you require formulations to be compliant with the current ZDHC MRSL limits whenever applicable.²
- Discuss with your chemical supplier whether any safer alternatives are available that are suitable substitutes for your production needs.
- Prior to procuring any formulation, the chemical properties must be reviewed to ensure that proper protective equipment, chemical storage facilities, facility engineering controls, and associated treatment/disposal facilities are appropriate for the chemical(s).

Safer Alternatives

There are various substitutions available to achieve full color ranges for synthetic textiles that may be suitable for your production needs. Any chosen alternative must be ZDHC MRSL compliant whenever applicable.²

Additional Information

Visit ECHA's Candidate List of substances of very high concern to view dossiers for many restricted substances <https://echa.europa.eu/candidate-list-table>.

Continued list of CAS numbers and substance names from first page:

CAS Number	Substance	CAS Number	Substance
3860-63-7	C.I. Disperse Blue 26	85136-74-9	C.I. Disperse Orange 149
56524-77-7	C.I. Disperse Blue 35A	2872-52-8	C.I. Disperse Red 1
56524-76-6	C.I. Disperse Blue 35B	2872-48-2	C.I. Disperse Red 11
12222-97-8	C.I. Disperse Blue 102	3179-89-3	C.I. Disperse Red 17
12223-01-7	C.I. Disperse Blue 106	61968-47-6	C.I. Disperse Red 151
61951-51-7	C.I. Disperse Blue 124	119-15-3	C.I. Disperse Yellow 1
23355-64-8	C.I. Disperse Brown 1	2832-40-8	C.I. Disperse Yellow 3
2581-69-3	C.I. Disperse Orange 1	6300-37-4	C.I. Disperse Yellow 7
730-40-5	C.I. Disperse Orange 3	6373-73-5	C.I. Disperse Yellow 9
82-28-0	C.I. Disperse Orange 11	6250-23-3	C.I. Disperse Yellow 23
12223-33-5	C.I. Disperse Orange 37/76/59	12236-29-2	C.I. Disperse Yellow 39
13301-61-6		54824-37-2	C.I. Disperse Yellow 49
51811-42-8		54077-16-6	C.I. Disperse Yellow 56

References

¹ Apparel and Footwear International RSL Management Group Restricted Substances List (AFIRM RSL) <http://afirm-group.com/afirm-rsl/>

² ZDHC Manufacturing Restricted Substances List (ZDHC MRSL) https://www.roadmapzero.com/mrsl_online/