



DYES – DISPERSE

Other Names See below

| 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 |

List continued in “Additional Information”

May Be Found In • Dyed Textiles

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.

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.

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.¹
- 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 \(external link\)](#)
 - USA EPA 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 limit.²
- 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 material suppliers so they have full visibility and understand your sourcing requirements.
- This includes synthetic textiles and its blends in particular.

Sourcing Compliant Formulations from Your Chemical Suppliers

- For all formulations, request SDS documentation that meets current GHS requirements.
- Contact your suppliers and explain that you require formulations to be compliant with the current ZDHC MRSL limit whenever applicable.³
- Discuss with your chemical supplier whether any safer alternatives are available that are suitable substitutes for your production needs.



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.

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

References

¹ Hohenstein Institute & Textile Exchange. (2017). Chemical Snapshots – Disperse Dyes. Revision 0.2. Retrieved March 17, 2017.

² Apparel and Footwear International RSL Management Group (Ed.). (2018, January 31). Restricted Substances List (RSL). Retrieved <http://afirm-group.com/afirm-rsl/>

³ Manufacturing Restricted Substances List (Publication). (2015, December). Retrieved <http://www.roadmapzero.com/programme/manufacturing-restricted-substances-list-mrsl-conformity-guidance/>