Safety Data Sheet (SDS) - Lutein

According to Regulation (EC) No 1907/2006 (REACH), as amended by Regulation (EU) 2020/878
Version 1.2, 23-Nov-2026

Section 1. Identification of the substance/mixture and of the company

Product name:	Lutein
Recommended uses:	Ingredient for professional formulation, analytical and R&D use
Uses advised against:	Uses not permitted by applicable legislation; household or non-professional use
Catalogue Number:	NST-10-133
Supplier:	NATURE SCIENCE TECHNOLOGIES Ltd Briezu 11, Lapsas, Latvia, LV-2107 Phone: +371 24220280 Email: sales@nstchemicals.com Website: www.nstchemicals.com Emergency: Latvian Poison Information Centre +371 67042473 (24/7)

Section 2. Hazards identification

Classification:



Regulation (EC) No 1272/2008 (CLP): Skin Irrit. 2 (H315); Eye Irrit. 2 (H319). Hazard pictogram: GHS07. Signal word: Warning. Hazard statements: H315 Causes skin irritation. H319 Causes serious eye irritation.
Precautionary statements: P264 Wash thoroughly after handling. P280 Wear protective gloves/eye protection. P302+P352 IF ON SKIN: Wash with plenty of water. 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.
Other hazards: Fine airborne organic dust may form a combustible dust atmosphere. PBT, vPvB and endocrine-disrupting properties have not been established for the supplied product.

Section 3. Composition/information on ingredients

Chemical name:	Lutein, >=75.0% (HPLC specification); botanical source: Tagetes erecta L. flower. Remaining constituents are not specified for this grade.
Synonyms:	Xanthophyll; beta,epsilon-Carotene-3,3'-diol
Chemical formula:	C40H56O2 (lutein component)
Molecular weight:	568.90 g/mol (lutein component)
CAS No:	127-40-2
EC No.	204-840-0

Section 4. First aid measures

Inhalation:	Move to fresh air. Keep at rest and obtain medical advice if coughing, breathing discomfort or other symptoms occur.
Skin:	Remove contaminated clothing. Wash skin thoroughly with soap and water. If skin irritation occurs, obtain medical advice/attention.
Eyes:	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Obtain medical advice if irritation persists.
Ingestion:	Rinse mouth. Do not induce vomiting. Obtain medical advice if unwell or if a significant amount has been swallowed. Never give anything by mouth to an unconscious person.

Section 5. Firefighting measures

Extinguishing media suitable:	Water spray, alcohol-resistant foam, dry extinguishing powder or carbon dioxide. Use extinguishing measures appropriate to the surrounding fire.
Special protection of fire-fighters:	Wear self-contained breathing apparatus and full protective equipment. Thermal decomposition may produce carbon monoxide, carbon dioxide and irritating fumes.

Section 6. Accidental release measures

Personal precautions:	Avoid dust formation and inhalation. Ensure adequate ventilation. Avoid contact with skin and eyes and wear the protective equipment described in Section 8. Remove ignition sources where dust is dispersed.
Environmental precautions:	Prevent entry into drains, surface water and soil. Avoid uncontrolled release to the environment.
Methods for cleaning up:	Collect mechanically or with a HEPA-filtered vacuum without generating dust. Place in a closed, labelled container for disposal and clean the affected area.

Section 7. Handling and storage

Handling:	Handle in a well-ventilated area. Minimise dust formation. Avoid inhalation and contact with skin and eyes. Wear protective gloves and eye protection. Wash thoroughly after handling.

Storage:	Store in a cool and dry place. Keep container tightly closed and protect from strong light and heat. Keep away from strong oxidising agents.

Section 8. Exposure controls/personal protection

Engineering measures:	No substance-specific occupational exposure limit has been established. Apply applicable limits for nuisance dust. Use local exhaust ventilation where dust may form and provide eyewash facilities.
Hygiene measures:	Wash hands and exposed skin thoroughly after handling and before breaks. Do not eat, drink or smoke in work areas. Remove contaminated clothing before reuse.
Personal protective equipment:	Respiratory protection: suitable particulate-filter respirator when dust forms or ventilation is insufficient. Hands: protective gloves appropriate to the work conditions, e.g. nitrile.
Skin and body:	Protective work clothing appropriate to the scale and duration of exposure. Wash contaminated clothing before reuse.
Eyes:	Safety glasses with side shields; use tightly fitting chemical goggles where dust exposure is significant.

Section 9. Physical and chemical properties

Physical state:	Solid, fine powder
Colour:	Red
Odour:	Characteristic
Molecular Weight:	568.90 g/mol (lutein component)
Melting point:	No data available for the supplied product
pH:	No data available
Boiling point:	No data available; decomposition may occur before boiling
Solubility:	No product-specific data available; the lutein component is insoluble in water
Explosive properties:	Not classified as explosive. Fine airborne organic dust may form a combustible dust atmosphere.

Section 10. Stability and reactivity

Stability:	Stable under recommended storage and normal handling conditions. Protect from strong light and heat.
Materials to avoid:	Strong oxidising agents; excessive heat and strong light.
Hazardous decomposition products:	Carbon monoxide, carbon dioxide and irritating fumes may form during combustion or thermal decomposition.

Section 11. Toxicological information

Acute toxicity:	Based on available data, the classification criteria for acute toxicity are not met. Reliable quantitative oral, dermal and inhalation toxicity data for the supplied product are not available.
Skin corrosion/irritation:	Causes skin irritation (Skin Irrit. 2, H315) and serious eye irritation (Eye Irrit. 2, H319).
Respiratory or skin sensitisation:	Based on available data, the classification criteria for respiratory or skin sensitisation are not met.
CMR effects:	Based on available data, the classification criteria for germ-cell mutagenicity, carcinogenicity and reproductive toxicity are not met.
Signs and symptoms of exposure:	Skin contact may cause redness or discomfort. Eye contact may cause redness, tearing and pain. Dust may irritate the respiratory tract mechanically.
Potential health effects:	The principal expected effects are skin and eye irritation. No other significant adverse effects are expected under normal professional handling conditions.
Inhalation:	Dust may cause coughing, sore throat or breathing discomfort through mechanical irritation.
Skin:	Causes skin irritation; prolonged or repeated contact may increase redness or discomfort.
Eyes:	Causes serious eye irritation, including redness, tearing and pain.
Ingestion:	May cause gastrointestinal discomfort if a significant amount is swallowed.
Other information:	Prevent unnecessary dust exposure and follow the protective measures in Section 8.

Section 12. Ecological information

Ecotoxicity:	No adequate aquatic toxicity data are available. The product is not classified as hazardous to the aquatic environment. Avoid uncontrolled release.
Persistence and degradability:	Persistence, degradability, bioaccumulation and mobility data are limited. The supplied product has not been identified as PBT or vPvB based on available information.
Other adverse effects:	Endocrine-disrupting properties have not been established. No other adverse environmental effects are known.

Section 13. Disposal considerations

Product:	Dispose of contents through a licensed waste disposal contractor in accordance with local, regional and national requirements. Do not discharge to drains.

Contaminated packaging:	Empty completely. Handle contaminated packaging in the same way as the product. Recycle clean packaging where permitted.

Section 14. Transport information

ADR/RID:	Not regulated as dangerous goods
IMDG:	Not regulated as dangerous goods
IATA:	Not regulated as dangerous goods

Section 15. Regulatory information

EU regulatory information:	Prepared in accordance with Regulation (EC) No 1907/2006 (REACH), Annex II, as amended by Regulation (EU) 2020/878. Classification and labelling have been assessed under Regulation (EC) No 1272/2008 (CLP), as amended. A chemical safety assessment has not been carried out by the supplier for this product.

Section 16. Other information

Notice to reader:	Version 1.2; revision date 23-Nov-2026. Revised to retain only general grade specifications. Approved GHS pictogram artwork was applied with corrected aspect ratio and spacing. Chemical classification and transport wording were not changed. Conservative classification: Skin Irrit. 2 (H315) and Eye Irrit. 2 (H319), based on an EU supplier SDS for lutein, CAS 127-40-2; other supplier SDSs report no CLP classification. The information is based on the product specification and safety information available at the date of issue. It is provided in good faith as guidance for safe handling, storage, transport and disposal and is not a warranty of product properties. Users are responsible for assessing suitability and complying with all applicable requirements for their intended use.