

2.2. Label elements

Hazard pictogram



Signal word

Warning

Hazard statements

H315

Causes skin irritation

H317

May cause an allergic skin reaction

H319

Causes serious eye irritation

H335

May cause respiratory irritation

H412

Harmful to aquatic life with long lasting effects

Precautionary statements

P261

Avoid breathing vapours

P280

Wear protective gloves and eye protection

P312

Call a POISON CENTER or doctor/physician if you feel unwell

P403+P233

Store in a well-ventilated place. Keep container tightly closed

P501

Dispose of contents and container to authorised waste disposal facility

Supplemental hazard information

Contains: TETRAHYDROFURFURYL METHACRYLATE, 2-(((BUTYLAMINO)CARBONYL)OXY)ETHYL ACRYLATE, ETHYL PHENYL(2,4,6-TRIMETHYLBENZOYL)PHOSPHINATE

2.3. Other hazards

This product does not contain any substances that are assessed to be a PBT or a vPvB

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Note that the table shows known hazards of the ingredients in pure form. These hazards are reduced or eliminated when mixed or diluted, see Section 16d.

Constituent	Classification	Concentration
TETRAHYDROFURFURYL METHACRYLATE		
CAS No: 2455-24-5 EC No: 219-529-5	Skin Irrit 2, Eye Irrit 2, STOT SE <i>3resp</i> ; H315, H319, H335	50 - 70 %
ISOBORNYL METHACRYLATE		
CAS No: 7534-94-3 EC No: 231-403-1 Index No: 607-134-00-4	Skin Irrit 2, Eye Irrit 2, STOT SE <i>3resp</i> ; H315, H319, H335	1 - 5 %
n-BUTYL ACETATE		
CAS No: 123-86-4 EC No: 204-658-1 Index No: 607-025-00-1 REACH: 01-2119485493-29	Flam Liq 3, STOT SE <i>3drow</i> ; H226, EUH066, H336	1 - 5 %
2-(((BUTYLAMINO)CARBONYL)OXY)ETHYL ACRYLATE		
CAS No: 63225-53-6 EC No: 264-036-0	Acute Tox <i>3dust-mist</i> , Skin Sens 1A, Aquatic Chronic 2; H331, H317, H411	1 - 5 %
ETHYL PHENYL(2,4,6-TRIMETHYLBENZOYL)PHOSPHINATE		
CAS No: 84434-11-7 EC No: 282-810-6	Skin Sens 1, Aquatic Chronic 2; H317, H411	1 - 5 %

Constituent	Classification	Concentration
CHROMIUM(III) OXIDE		
CAS No: 1308-38-9 EC No: 215-160-9		1 - 5 %

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complements used in the calculation of the classification of this mixture, see Section 16b.

SECTION 4: First aid measures

4.1. Description of first aid measures

Generally

In case of concern, or if symptoms occur, call a doctor/physician.

Upon breathing in

Bring the injured person out into fresh air. Give artificial respiration if breathing has stopped. If breathing is difficult let trained personnel administer oxygen. Let the injured person rest in a warm place with fresh air and seek medical advice immediately.

Upon eye contact

Remove contact lenses immediately if possible.

Rinse the eye for several minutes with lukewarm water. If irritation persists call a doctor/ophthalmologist.

Upon skin contact

Remove contaminated clothing.

Wash the skin with soap and water.

If symptoms occur, contact a physician.

Upon ingestion

Rinse mouth out thoroughly first with water, then SPIT OUT the rinse water. Drink at least half a litre of water and seek medical advice. DO NOT INDUCE VOMITING.

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

Upon breathing in

May cause respiratory irritation.

Upon eye contact

Irritation.

Upon skin contact

Irritation.

Upon ingestion

May cause irritation of mucous membranes, nausea and vomiting.

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

Symptomatic treatment.

Upon contact with a doctor, make sure to have the label or this safety data sheet with you.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Extinguish with water mist, powder, carbon dioxide or alcoholresistant foam.

5.2. Special hazards arising from the substance or mixture

In case of fire, hazardous and toxic gases (cyanides, carbon oxides and nitrogen oxides) are formed.

5.3. Advice for fire-fighters

Protective measures should be taken regarding other material at the site of the fire.

In case of fire use proper breathing apparatus.

Wear full protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate the accident area and call an ambulance, if relevant.
Avoid direct inhalation of fumes from the product. Avoid contact with eyes.
Use recommended safety equipment, see section 8.
Keep unauthorized and unprotected people at a safe distance.
Ensure good ventilation.

6.2. Environmental precautions

Avoid release to drains, soil or watercourses.

6.3. Methods and material for containment and cleaning up

Absorb the liquid with an inert absorbent, vermiculite, for example. Collect the material for disposal at a waste disposal facility.
Ensure good ventilation after sanitation.

6.4. Reference to other sections

See section 8 and 13 for personal protection equipment and disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid spillage, inhalation and contact with eyes and skin.
Work in order to avoid spillage. If spillage does occur, address it immediately in accordance with the directions specified in Section 6 of this safety data sheet.
Store this product separately from food items and keep it out of the reach of children and pets.
Do not eat, drink or smoke in premises where this product is handled.
Wash your hands after using the product.
Remove contaminated clothing.
Wash contaminated clothing before reuse.
Local exhaust ventilation may be necessary.
Keep away from incompatible products.
Use recommended safety equipment, see section 8.

7.2. Conditions for safe storage, including any incompatibilities

The product should be stored in a manner which prevents hazards to health and the environment. Avoid exposure to humans and animals and do not discharge the product in a sensitive environment.
This product should be stored well out of reach of young children and kept safely apart from products intended for consumption.
Always use sealed and visibly labeled packages.
Store tightly, in original packaging.
Store in a well-ventilated space.
Do not store close to incompatible materials (see section 10.5).

7.3. Specific end uses

See identified uses in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National limit values

Iron oxide, fume (as Fe)

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 5 mg/m³

Short term exposure limit (STEL) 10 mg/m³

Chromium (III) compounds (as Cr)

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 0.5 mg/m³

n-BUTYL ACETATE

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 150 ppm / 724 mg/m³

Short term exposure limit (STEL) 200 ppm / 966 mg/m³

MICA-GROUP MINERALS

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 0.8 mg/m³ (Respirable fraction) / 10 mg/m³ (Total inhalable)

IRON(III) OXIDE

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 5 mg/m³

Short term exposure limit (STEL) 10 mg/m³

CARBON BLACK

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 3.5 mg/m³

Short term exposure limit (STEL) 7 mg/m³

DNEL

n-BUTYL ACETATE

	Type of exposure	Route of exposure	Value
Worker	Acute	Inhalation	960 mg/m ³
	Local		
Consumer	Chronic	Inhalation	102.34 mg/m ³
	Systemic		
Worker	Acute	Inhalation	960 mg/m ³
	Systemic		
Worker	Chronic	Inhalation	480 mg/m ³
	Local		
Worker	Chronic	Inhalation	480 mg/m ³
	Systemic		
Consumer	Acute	Inhalation	859.7 mg/m ³
	Local		
Consumer	Acute	Inhalation	859.7 mg/m ³
	Systemic		
Consumer	Chronic	Inhalation	102.34 mg/m ³
	Local		

PNEC

n-BUTYL ACETATE

Environmental protection target	PNEC value
Fresh water	0.18 mg/l
Freshwater sediments	0.981 mg/kg
Marine water	0.018 mg/l
Marine sediments	0.0981 mg/kg
Microorganisms in sewage treatment	35.6 mg/l
Soil (agricultural)	0.0903 mg/kg
Intermittent	0.36 mg/m ³

8.2. Exposure controls

To prevent occupational risks the health hazards for this product or any of the ingredients should be taken into account (see sections 2, 3 and 11), according to EU Directive 89/391 and 98/24 and national jurisdiction for occupational risks.

8.2.1. Appropriate engineering controls

- Handle in premises with good ventilation.
- Use local exhaust ventilation.
- Eye-rinsing facilities shall be available at the workplace.

Eye/face protection

Use protective glasses with tight seals according to standard EN166.

Skin protection

- Use suitable protective clothing.
- Use protective gloves fulfilling the standard EN374 if there is a risk of direct contact.
- During continuous contact use gloves with a minimum breakthrough time of at least 240 minutes, preferably over 480 minutes.
- The most suitable protective glove should be chosen in consultation with the glove supplier, taking into account the risk assessment for the specific task and the properties of the chemicals involved. Note that the breakthrough time of the material is affected by the duration of the exposure, temperature conditions, abrasion, etcetera.
- Based on the chemical properties of the product, the following glove materials are recommended:
 - Nitrile rubber.
 - Polymer laminate.

Respiratory protection

- Use appropriate respiratory protective equipment in case of insufficient ventilation.
- The most appropriate respiratory protective equipment should be decided in consultation with the appointed safety representative, taking into account the risk assessment for the specific task.
- Based on the physical and chemical properties of the product, the following filter type(s) and/or filter combination(s) are recommended:
 - A.

8.2.3. Environmental exposure controls

Work with the product should take place in such a way that the product does not get into drains, waterways, soil and air.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance	Form: liquid. Colour: Clear.
b) Odour	characteristic
c) Odour threshold	Not indicated
d) pH	Not indicated
e) Melting point/freezing point	Not indicated
f) Initial boiling point and boiling range	Not indicated
g) Flash point	100 °C closed cup
h) Evaporation rate	Not indicated
i) Flammability (solid, gas)	Not applicable
j) Upper/lower flammability or explosive limits	Not indicated
k) Vapour pressure	Not indicated
l) Vapour density	Not indicated
m) Relative density	Not indicated
n) Solubility	Solubility in water: Insoluble
o) Partition coefficient: n-octanol/water	Not applicable
p) Auto-ignition temperature	Not indicated
q) Decomposition temperature	Not indicated
r) Viscosity	Not indicated
s) Explosive properties	Not applicable
t) Oxidising properties	Not applicable

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product contains no substances which can lead to hazardous reactions at normal use.

10.2. Chemical stability

The product is stable at normal storage and handling conditions.

10.3. Possibility of hazardous reactions

No hazardous reactions known during normal use.

10.4. Conditions to avoid

Protect from direct sunlight.
Avoid heating.

10.5. Incompatible materials

Avoid contact with strong acids.
Avoid contact with strong oxidizing agents.

10.6. Hazardous decomposition products

Does not decompose to hazardous substances.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Not indicated.

Acute toxicity

The criteria for classification cannot be considered fulfilled based on available data.

n-BUTYL ACETATE

LD50 rabbit 24h: > 17600 mg/kg Dermal
LC50 rat 4h: 40 mg/l Inhalation
LD50 Mouse 24h: 6000 mg/kg Orally
LD50 rabbit 24h: 3200 mg/kg Orally
LD50 rat 24h: 10768 mg/kg Orally

2-(((BUTYLAMINO)CARBONYL)OXY)ETHYL ACRYLATE

LC50 rat 4h: 0.5 - 1 mg/L Inhalation

LD50 rat 24h: 2000 - 5000 mg/kg Orally

CHROMIUM(III) OXIDE

LD50 rabbit 24h: ≈ 57 mg/kg Dermally

LC50 rat 4h: 0.22 mg/L Inhalation

LD50 rat 24h: > 5000 mg/kg Orally

Skin corrosion/irritation

May cause skin irritation.

Serious eye damage/irritation

Eye contact may cause burning pain or irritation.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

The product is not classified as mutagen.

Carcinogenicity

The product is not classified as carcinogenic.

Reproductive toxicity

The product is not classified as a reproductive toxicant .

STOT-single exposure

May cause potent irritation in the airways/lungs.

STOT-repeated exposure

The criteria for classification cannot be considered fulfilled based on available data.

Aspiration hazard

The criteria for classification cannot be considered fulfilled based on available data.

SECTION 12: Ecological information

12.1. Toxicity

Prevent release on land, in water and drains.

Harmful to aquatic life with long lasting effects.

n-BUTYL ACETATE

LC50 fathead minnow (*Pimephales promelas*) 96h: 18 mg/l

LC50 Ide (*Leuciscus idus*) 96h: 62 mg/l

EC50 Freshwater water flea (*Daphnia magna*) 48 h: 1 - 100 mg/l

EC50 Freshwater water flea (*Daphnia magna*) 24h: 73 mg/l

IC50 Algae 72h: 670 mg/l

2-(((BUTYLAMINO)CARBONYL)OXY)ETHYL ACRYLATE

LC50 Zebra fish (*Brachydanio rerio*) 96h: 2.52 mg/L

EC50 Algae (*Scenedesmus subspicatus*) 72h: 5.98 mg/L

CHROMIUM(III) OXIDE

LC50 Fish 96h: > 10000 mg/l

12.2. Persistence and degradability

The product is not readily biodegradable.

12.3. Bioaccumulative potential

This product or some of its ingredients are suspected to accumulate in nature.

12.4. Mobility in soil

Absorbed into soil.

12.5. Results of PBT and vPvB assessment

This product does not contain any substances that are assessed to be a PBT or a vPvB.

12.6. Other adverse effects

Data lacking.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste handling of the product

Avoid discharge into sewers.

Discarded products must be disposed of as hazardous waste in accordance with regulations.

Not completely emptied packaging can contain remnants of dangerous substances and should therefore be handled as hazardous waste according to the above. Completely emptied packaging can be recycled.

Observe local regulations.

See also national waste regulations.

SECTION 14: Transport information

Where not otherwise stated the information applies to all of the UN Model Regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea), and ICAO (IATA) (air).

14.1. UN number

Not classified as dangerous goods

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

14.8 Other transport information

Not applicable

SECTION 15: Regulatory information

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

Not indicated.

15.2. Chemical safety assessment

Assessment and chemical safety report in accordance with 1907/2006 Annex I has not yet been performed.

SECTION 16: Other information

16a. Indication of where changes have been made to the previous version of the safety data sheet

Revisions of this document

Earlier versions

2019-01-22 Changes in section(s) 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14.

16b. Legend to abbreviations and acronyms used in the safety data sheet

Full texts for Hazard Class and Category Code mentioned in section 3

Skin Irrit 2	Skin Irritant (Category 2)
Eye Irrit 2	Irritates eyes (Category 2)
STOT SE <i>3resp</i>	Specific target organ toxicity - single exposure; May cause respiratory irritation (Category 3 resp)
Flam Liq 3	Flammable liquids (Category 3)
STOT SE <i>3drow</i>	Specific target organ toxicity - Single exposure (Category 3, Narcosis effect)
Acute Tox <i>3dust-mist</i>	Acute toxicity (Category 3 dust/mist)
Skin Sens 1A	May cause an allergic skin reaction (Category 1A)
Aquatic Chronic 2	Toxic to aquatic life with long lasting effects (Category Chronic 2)
Skin Sens 1	May cause an allergic skin reaction (Category 1)

Explanations of the abbreviations in Section 14

ADR European Agreement concerning the International Transport of Dangerous Goods by Road

RID Regulations concerning the International Transport of Dangerous Goods by Rail

IMDG International Maritime Dangerous Goods Code

ICAO International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)

IATA The International Air Transport Association

16c. Key literature references and sources for data

Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I, as updated to 2020-05-13.

Where such data was not available, alternative documentation used to establish the official classification was used, e.g. IUCLID (International Uniform Chemical Information Database). As a second alternative, information was used from reputable international chemical industries, and as a third alternative other available information was used, e.g. material safety data sheets from other suppliers or information from non-profit associations, where reliability of the source was assessed by expert opinion. If, in spite of this, reliable information could not be sourced, the hazards were assessed by expert opinions based on the known hazards of similar substances, and according to the principles in 1907/2006 and 1272/2008.

Full texts for Regulations mentioned in this Safety Data Sheet

- 1907/2006 REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
- 2015/830 COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- 1272/2008 REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
- EH40/2005 EH40/2005 Workplace exposure limits
- 1907/2006 REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

Hazard calculation for this mixture has been performed as a cumulative assessment with the aid of expert assessments in accordance with 1272/2008 Annex I, where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI.

16e. List of relevant hazard statements and/or precautionary statements

Full texts for hazard statements mentioned in section 3

- H315 Causes skin irritation
H319 Causes serious eye irritation
H335 May cause respiratory irritation
H226 Flammable liquid and vapour
EUH066 Repeated exposure may cause skin dryness or cracking
H336 May cause drowsiness or dizziness
H331 Toxic if inhaled
H317 May cause an allergic skin reaction
H411 Toxic to aquatic life with long lasting effects

16f. Advice on any training appropriate for workers to ensure protection of human health and the environment Warning for misuse

This product can cause harm if used improperly. The manufacturer, the distributor or the supplier are not responsible for adverse effects if the product is not handled in accordance with its intended use.

Other relevant information

Not indicated

Editorial information



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