

Ergoplast ADO

This Material Safety Data Sheet according to 1907/2006/EC (REACH) & 1272/2008 (CLP) & 830/2015

Section 1. Identification of the substance/mixture and of the company/undertaking1.1. Product identifier

Trade name: Ergoplast ADO
 Other names: Bis(2-ethylhexyl) adipate
 CAS Number: 103-23-1
 EC Number: 203-090-1
 Registration number: 01-2119439699-19-0011

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: plasticizers.
 Uses advised against: no specific data available.

1.3. Details of the supplier of the safety data sheet

Boryszew S.A.
 Oddział Boryszew ERG w Sochaczewie
 ul. 15 Sierpnia 106; 96-500 Sochaczew
 tel. 46 863 02 01
 fax. 46 863 00 96
 adres www: boryszewerg.com.pl
 email: certyfikacja@boryszewerg.com.pl

1.4. Emergency telephone number

Tel.: 112 (general emergency telephone number)

Section 2. Hazards identification2.1. Classification of the substance or mixture

According to the Directive (EC) 1272/2008: the substance no classified as hazardous.

Hazards for human health or life: none

Hazards for the environment: none

Other hazards: none

2.2. Label elements

According to the Regulation (EC) 1272/2008:

warning sign: none

hazard indicating statement: none

precautionary statements: none

2.3. Other hazards

Not fulfilling the PBT and vPvB criteria according to Annex XIII of the REACH Regulation.

Section 3. Composition/information on ingredients3.1. Substances

Substance name	Concentration range [%]	CAS Number:	EC Number:	Hazard symbols
				Regulation (EC) 1272/2008
Bis(2-ethylhexyl) adipate	99.5 ÷ 99.9	103-23-1	203-090-1	-

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3.2. Mixtures

Not applicable

Section 4. First aid measures**4.1. Description of first aid measures**

Swallowing: Do not induce vomiting. If the affected person is conscious, wash mouth and give 2 glasses of water to drink. Never give anything to drink to an unconscious person.

Inhalation: Move the affected person out of the exposure area. Deep breaths on fresh air are recommended.

Skin: Remove contaminated clothing. Clean the contaminated skin, wash with plenty of water and then with water containing mild soap.

Eye: Wash eyes with plenty of running water with eye lids wide open for at least 15 minutes.

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

Not applicable

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

In the event of any symptoms, immediately call a physician or transport the affected person to hospital. Show the packaging or label to the physician. Symptomatic treatment (decontamination, vital functions).

Section 5. Firefighting measures**5.1. Extinguishing media**

Suitable extinguishing agents: carbon dioxide, dry powder, dispersed water, extinguishing foams.

Unsuitable extinguishing agents: no data available.

5.2. Special hazards arising from the substance or mixture

The product is combustible. Cool endangered containers with water-spray.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Section 6. Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Wear personal protective clothing: protective clothing made of coated materials, protective glasses and protective gloves made of neoprene or perbunan (do not use PVC gloves).

6.2. Environmental precautions

Stop the leakage. Remove all ignition sources. Do not allow the product to enter sewers (protect the drains), surface or groundwater.

Avoid direct contact with the releasing substance. In the event of large amount of product is released or environmental contamination, notify relevant authorities and chemical rescue services.

6.3. Methods and material for containment and cleaning up

Embank large amount of the released product and pump out to labelled containers. Cover small amount of liquid with a non-flammable absorbent (sand, soil, silica, sawdust) and collect into a labelled, tightly closed waste container. Wash the leakage area with water. Put damaged containers in the waste container.

6.4. References to other sections

Personal protective measures - see section 8. Waste handling - see section 13.

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Section 7. Handling and storage7.1. Precautions for safe handling

Ensure thorough ventilation of stores and work areas.

7.2. Conditions for safe storage, including any incompatibilities

Store in tight, closed container, in a dry place.

7.3. Specific end use(s)

No data available

Section 8. Exposure controls/personal protection8.1. Control parameters

Acceptable concentrations in the work environment:

Specification	MAC	STEL	TWA
Bis(2-ethylhexyl) adipate CAS 103-23-1	400 mg/m ³	-	-

DNEL

- employee, long-term exposure by skin: 25.5 mg/kg bw/day, (systemic effects)
- employee, long-term exposure by inhalation: 17.8 mg/m³, (systemic effects)
- general population including consumer, long-term exposure by skin: 13 mg/kg bw/day, (systemic effects)
- general population including consumer, long-term exposure by inhalation: 4.4 mg/m³, (systemic effects)
- general population including consumer, long-term exposure by ingestion: 1.3 mg/kg bw/day, (systemic effects)

PNEC

- freshwater environment: 0.0032 mg/l
- seawater environment: 0.0032 mg/l
- sediment (freshwater): 15.6 mg/kg
- sediment (marine water): 0.19 mg/kg
- soil: 0.865 mg/kg
- wastewater treatment plant environment: 35 mg/l
- intermittent release: 0.0032 mg/l

8.2. Exposure controls

Provide appropriate general ventilation in warehouse facilities and workstations. Prevent eye and skin contamination. Prevent production of product dust, do not inhale product vapour, smoke or dust. Where excessive concentration of dust may occur, implement spraying with dispersed water.

Personal Protective Equipment: Do not eat, drink, smoke during product handling, do not take medication during work

Respiratory protection: wear respiratory protection if ventilation is inadequate. Gas filter for gases/vapours of organic compounds (boiling point >65°C, e.g. EN 14387 Type A).

Hand protection: suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other Manufacturer's direction for use should be observed because of great diversity of types.

Eye protection: safety glasses with side-shields (frame goggles) (e.g. EN 166).

Body protection: must be chosen depending on activity and possible exposure, e.g. apron, protective boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

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Section 9. Physical and chemical properties**9.1. Information on basic physical and chemical properties**

appearance	colourless, oily liquid, homogeneous
odour	faint
odour threshold	not determined
pH	not determined
melting point	-67.8°C
initial boiling point	417°C (1,013 hPa)
boiling temperature range	not determined
flash point	min. 195°C
ignition temperature	377°C
evaporation rate	not determined
flammability (solid, gas)	not applicable
Explosion limits	not determined
volatility	max. 0.3% (6h/100°C)
vapour pressure	0.00003 Pa (in 20°C)
vapour buoyancy	not determined
density	0.922-0.930 g/cm ³ (in 20°C)
vapour density to air	12.8
relative density, min	not determined
solubility	in water 0,0032 mg/l (in 22°C) other solvents - organic solvents
partition coefficient: n-octanol/water	8,94 (in 25°C)
ignition point	not determined
decomposition temperature	not determined
viscosity	13-15 mPa*s (in 20°C)
explosive properties	none
oxidising properties	not determined
water content	max. 0.10%

9.2. Other information

none

Section 10. Stability and reactivity**10.1. Reactivity**

Corrosion to metals: Corrosive effects to metal are not anticipated.

Formation of flammable gases: Forms no flammable gases in the presence of water.

10.2. Chemical stability

Product stable under normal conditions of storage and use.

10.3. Possibility of hazardous reactions

Reaction with strong oxidisers.

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10.4. Conditions to avoid

Contact with open fire and ignition sources, temperature above 40°C.

10.5. Incompatible materials

Strong oxidisers.

10.6. Hazardous decomposition products

No hazardous decomposition products if stored and handled as prescribed/indicated.

Section 11. Toxicological information**11.1. Information on toxicological effects*****Acute Toxicity***

Ingestion (rat): LD50 > 24600 mg/kg (OECD 401)

Inhalation (rat): LD50 >5,7 mg/l/4h (OECD 403)

After application on skin: Data not available.

Corrosive/irritant to skin: non irritant (rabbit) product was not tested. Statements below are based on products of similar structure and composition (OECD 404 guidelines).

Serious eye damage/irritation (rabbit): Non irritant. (OECD 405 guidelines) product was not tested. Statements below are based on products of similar structure and composition.

Sensitising to the respiratory tract/skin: Tested on animals (guinea pig), no sensitising reaction.

Mutagenicity on reproductive cells: In various studies performed on bacteria, microorganisms and mammal cell cultures, no mutagenic effect was observed. In studies on mammals, the substance did not show mutagenic effect.

Carcinogenicity: As a result of long-term studies on rats, no carcinogenic effect was observed when the substance was given to animals with food. In long-term studies on rodents, the substance shows carcinogenic effect, probably as a result of rodent-specific liver damage, which has no correspondence to humans.

Reproductive toxicity: Studies on animals did not show negative impact on reproductive ability.

Developmental toxicity: teratogenicity assessment: Studies on animals do not show foetus damaging effect, at a dose which is not toxic for specimens with reproductive abilities.

Substance toxic to organs or systems - Single exposure: no data available

Substance toxic to organs or systems - Repeated exposure: repeated exposure to large doses of the substance causes reversible changes in rodent liver. According to current knowledge, this effect does not occur in humans.

Aspiration hazard: not applicable.

Section 12. Ecological information**12.1. Toxicity**

Fish toxicity: LC0 >0.78 mg/l/96h *Oncorhynchus mykiss*

Toxicity to aquatic invertebrates: EC50 >500 mg/l/48h, *Daphnia magna*

Toxicity to aquatic plants; EC50 >500 mg/l/72h, *Scenedesmus subspicatus*

Microorganisms/effect on activated sludge: EC20 >350 mg/l/3h, anaerobic activated sludge

Chronic toxicity to fish: Study not required due to scientific reasons.

Chronic toxicity to aquatic invertebrates: LOEC > 0.77 mg/l/21d, *Daphnia magna* (OECD 202, part 2, semi-static test)

Soil organisms: LC50 > 1000 mg/kg/7d, *Eisenia foetida*

No toxic effect in solubility. When small concentrations are appropriately introduced into a biological water treatment plant, no disruption to the activated sludge decomposition should be expected.

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12.2. Persistence and degradability

Easily biodegradable product (according to OECD criteria). Biodegradation rate: approx. 98% BOD for a theoretical oxygen demand. In contact with water the substance will hydrolyse slowly.

12.3. Bioaccumulative potential

Does not significantly accumulate in organisms. Bioconcentration factor: 27 (28d), *Lepomis macrochirus* (measured).

12.4. Mobility in soil

The substance will slowly evaporate into the atmosphere from the water surface.

12.5. Results of PBT and vPvB assessment

Not fulfilling the PBT and vPvB criteria according to Annex XIII of the REACH Regulation.

12.6. Other adverse effects

Do not release untreated into natural waters.

Section 13. Disposal considerations**13.1. Waste treatment methods**

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

Section 14. Transport information**14.1. UN number**

None

14.2. UN proper shipping name

None

14.3. Transport hazard class(es)

Not classified, the substance causes no hazards in transport.

14.4. Packing group

None

14.5. Environmental hazards

None

14.6. Special precautions for user

None

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

Section 15. Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization 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.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC

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and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance).

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work (Text with EEA relevance).

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)

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the substance.

Section 16. Other information

The above information were created based on the current data describing the product, as well as the producer's experience and knowledge in this area. They are to be treated as a supporting information in safe handling during transport, storage and product usage. However, this does not indemnify the user from the responsibility for the incorrect usage of the above information and adherence to all relevant regulations.

date of revision

29.05.2015 – date of revision by regulation 1272/2008

27.07.2015 – section 2.1, 2.2, 15

07.06.2017 - date of revision by regulation 830/2015