

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 /
Rules and Regulations



Article No.: PW08000AFJ10 AC ExoBloc Turbo
Print date: 28.02.2023 Revision date: 27.02.2023 56142 US
Version: 15.0000 Issue date: 10.02.2023 Page 1 / 9

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Article No. (manufacturer/supplier) PW08000AFJ10
Trade name/designation AC ExoBloc Turbo
abZ-Nr. Z-157.10-47

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

Relevant identified uses

paint and/or paint related material

Uses advised against

Do not use for injecting or spraying.
Product is not intended for consumer use.

1.3. Details of the supplier of the safety data sheet

supplier (manufacturer/importer/downstream user/distributor)

Berger-Seidle GmbH
Parkettlacke - Klebstoffe - Bauchemie Telephone: +49 6359 / 8005-0
Maybachstraße 2 Telefax: +49 6359 / 8005-170
67269 Grünstadt
Germany

Department responsible for information:

Laboratory
E-mail Sicherheitsdaten@berger-seidle.de

1.4. Emergency telephone number

24-hour emergency number in side USA: +1 872 5888271 or +11 49 700 24112112 (BLG)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 4 / H227	Flammable liquids	Combustible liquid.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
STOT SE 3 / H335	STOT-single exposure	May cause respiratory irritation.

2.2. Label elements

GHS-US labeling

Hazard pictograms



Warning

Hazard statements

H227 Combustible liquid.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing vapours.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves and eye/face protection.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 /
Rules and Regulations



Article No.: PW08000AFJ10 AC ExoBloc Turbo
Print date: 28.02.2023 Revision date: 27.02.2023 56142 US
Version: 15.0000 Issue date: 10.02.2023 Page 2 / 9

P362 + P364 Take off contaminated clothing and wash it before reuse.
P370 + P378 In case of fire: Use extinguishing powder or sand to extinguish.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Keep locked up.
P501 Dispose of contents/container to industrial incineration plant.

Hazard components for labelling

2.3. Other hazards

No information available.

Other information

If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Description Preparations containig isocyanates

Hazardous ingredients

GHS-US classification

CAS No.	Designation // Remark	weight-%
28182-81-2	Hexamethylene diisocyanate, oligomers	50 - 100
9046-01-9	2-(tricylcoxy) ethyl dihydrogen phosphate	1 - 2,5
822-06-0	hexamethylene-di-isocyanate	< 0,1

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

Following ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

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

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Article No.: PW08000AFJ10 AC ExoBloc Turbo
Print date: 28.02.2023 Revision date: 27.02.2023 56142 US
Version: 15.0000 Issue date: 10.02.2023 Page 3 / 9

Unsuitable extinguishing media

strong water jet

5.2. Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3. Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

6.4. Reference to other sections

Observe protective provisions (see section 7 and 8).

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Further information

Vapours are heavier than air. Vapours form explosive mixtures with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRGS 727)".

Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

Further information on storage conditions

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 25 °C. Protect from heat and direct sunlight.

Due to the content of organic solvents in the preparation:

Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values

hexamethylene-di-isocyanate

Index No. 615-011-00-1 / EC No. 212-485-8 / CAS No. 822-06-0

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 /
Rules and Regulations



Article No.: PW08000AFJ10 AC ExoBloc Turbo
Print date: 28.02.2023 Revision date: 27.02.2023 56142 US
Version: 15.0000 Issue date: 10.02.2023 Page 4 / 9

ACGIH, TWA: 0,034 mg/m³; 0,005 ppm
NIOSH, TWA: 0,035 mg/m³; 0,005 ppm
NIOSH, C: 0,14 mg/m³; 0,02 ppm
ACGIH-BEI, TWA: 15 µg/g creatinine
Remark: 1,6-Hexamethylene diamine, Following hydrolysis; urine; end of exposure or end of shift

Additional information

TWA : Long-term occupational exposure limit value
STEL : short-term occupational exposure limit value
C : peak limitation

8.2. Exposure controls

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

Personal protection equipment

Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

Hand protection

For prolonged or repeated handling the following glove material must be used: Butyl caoutchouc (butyl rubber)

Thickness of the glove material > 0,4 mm ; Breakthrough time: > 480 min.

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection

Wear closely fitting protective glasses in case of splashes.

Body protection

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

*

Physical state:	Liquid
Colour:	colourless
Odour:	characteristic
Odour threshold:	not applicable
Initial boiling point and boiling range:	175 °C Source: Dipropylene glycol dimethyl ether, mixture of isomers
Lower and upper explosion limit:	
Lower explosion limit:	not determined
Upper explosion limit:	not determined
Flash point:	65 °C
Auto-ignition temperature:	165 °C Source: Dipropylene glycol dimethyl ether, mixture of isomers
Decomposition temperature:	not applicable
pH at 20 °C:	not applicable
Cinematic viscosity (40°C):	< 80 mm²/s

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 /
Rules and Regulations



Article No.: PW08000AFJ10 AC ExoBloc Turbo
Print date: 28.02.2023 Revision date: 27.02.2023 56142 US
Version: 15.0000 Issue date: 10.02.2023 Page 5 / 9

Viscosity at 20 °C:	13 s 4 mm Method: DIN 53211
Solubility(ies):	
Water solubility at 20 °C:	partially soluble
Partition coefficient: n-octanol/water:	see section 12
Vapour pressure at 20 °C:	0,72 mbar Method: calculated. Source: Dipropylene glycol dimethyl ether, mixture of isomers
Density and/or relative density:	
Density at 20 °C:	1,02 g/cm³ Method: ISO 2811, part 3
Relative vapour density:	not applicable
particle characteristics:	not applicable
9.2. Other information	*
Solvent separation test:	< 3 weight-% (ADR/RID)

SECTION 10: Stability and reactivity

- 10.1. **Reactivity**
No information available.
- 10.2. **Chemical stability**
Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.
- 10.3. **Possibility of hazardous reactions**
Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.
- 10.4. **Conditions to avoid**
Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7. Hazardous decomposition byproducts may form with exposure to high temperatures.
- 10.5. **Incompatible materials**
not applicable
- 10.6. **Hazardous decomposition products**
Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Hexamethylene diisocyanate, oligomers
oral, LD50, Rat: > 5000 mg/kg
Method: OECD 401
dermal, LD50, Rabbit: > 2000 mg/kg

hexamethylene-di-isocyanate
oral, LD50, Rat: 959 mg/kg
Method: OECD 401
dermal, LD50, Rat: > 7000 mg/kg
inhalative (vapours), LC50, Rat (4 h)

Skin corrosion/irritation; Serious eye damage/eye irritation

Causes serious eye irritation.

hexamethylene-di-isocyanate
Skin (4 h)
eyes

2-(tricylcoxy) ethyl dihydrogen phosphate
Skin (4 h)
eyes

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 /
Rules and Regulations



Article No.: PW08000AFJ10 AC ExoBloc Turbo
Print date: 28.02.2023 Revision date: 27.02.2023
Version: 15.0000 Issue date: 10.02.2023

56142 US
Page 6 / 9

Respiratory or skin sensitisation

May cause an allergic skin reaction.

hexamethylene-di-isocyanate

Skin:

Respiratory system:

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Based on available data, the classification criteria are not met.

STOT-single exposure; STOT-repeated exposure

May cause respiratory irritation.

hexamethylene-di-isocyanate

Specific target organ toxicity (single exposure), Irritation

Aspiration hazard

Based on available data, the classification criteria are not met.

Practical experience/human evidence

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

Overall assessment on CMR properties

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

Remark

There is no information available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified according to the toxicological dangers. See chapters 2 and 15 for details.

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

SECTION 12: Ecological information

Classification according to Regulation (EC) No 1272/2008 [CLP]

Do not allow to enter into surface water or drains.

12.1. Toxicity

hexamethylene-di-isocyanate

Daphnia toxicity, EC0, Daphnia magna (Big water flea): > 89 mg/L (48 h)

Method: European Union

Bacteria toxicity, EC50: 842 mg/L (3 h)

Algae, Desmodesmus subspicatus: > 77,4 (72 h)

Fish toxicity, LC0:, Danio rerio (zebrafish): > 82,7 mg/L

Algae, NOEC, Desmodesmus subspicatus: 11,7 mg/L (72 h)

Long-term Ecotoxicity

2-(tricylcoxy) ethyl dihydrogen phosphate

Fish toxicity, LC50 (96 h)

12.2. Persistence and degradability

hexamethylene-di-isocyanate

, DT50: 48,44 h

Method: Photolysis

BOD28: 42 %

Method: OECD F

12.3. Bioaccumulative potential

Toxicological data are not available.

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 /
Rules and Regulations



Article No.: PW08000AFJ10 AC ExoBloc Turbo
Print date: 28.02.2023 Revision date: 27.02.2023 56142 US
Version: 15.0000 Issue date: 10.02.2023 Page 7 / 9

Bioconcentration factor (BCF)

Toxicological data are not available.

12.4. Mobility in soil

Toxicological data are not available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate disposal / Product Recommendation

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

List of proposed waste codes/waste designations in accordance with EWC

080111* Waste paint and varnish containing organic solvents or other dangerous substances

*Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Appropriate disposal / Package Recommendation

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

No dangerous good in sense of this transport regulation.

14.1. UN number or ID number

not applicable

14.2. UN proper shipping name

14.3. Transport hazard class(es)

not applicable

14.4. Packing group

not applicable

14.5. Environmental hazards

Land transport (ADR/RID)

not applicable

Marine pollutant

not applicable

14.6. Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

Further information

Land transport (ADR/RID)

Tunnel restriction code

-

Sea transport (IMDG)

EmS-No.

not applicable

14.7. Maritime transport in bulk according to IMO instruments

No transport as bulk according IBC - Code.

SECTION 15: Regulatory information

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

US Federal regulations

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 /
Rules and Regulations



Article No.: PW08000AFJ10 AC ExoBloc Turbo
Print date: 28.02.2023 Revision date: 27.02.2023
Version: 15.0000 Issue date: 10.02.2023

56142 US
Page 8 / 9

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]

This product is not classified according to Directive 2012/18/EU.

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]

VOC-value (in g/L) ISO 11890-2: 442

VOC-value (in g/L) ASTM D2369: 442

National regulations

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Substance/product listed in the following inventories:

TSCA: All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Full text of classification in section 3:

Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
STOT SE 3 / H335	STOT-single exposure	May cause respiratory irritation.
Skin Irrit. 2 / H315	Skin corrosion/irritation	Causes skin irritation.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
Aquatic Chronic 3 / H412	Hazardous to the aquatic environment	Harmful to aquatic life with long lasting effects.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Acute Tox. 2 / H330	Acute toxicity (inhalative)	Fatal if inhaled.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Resp. Sens. 1 / H334	Respiratory or skin sensitisation	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Classification procedure

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Flam. Liq. 4	Flammable liquids	On basis of test data.
Eye Irrit. 2	Serious eye damage/eye irritation	Calculation method.
Skin Sens. 1	Respiratory or skin sensitisation	Calculation method.
STOT SE 3	STOT-single exposure	Calculation method.

Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL	Occupational Exposure Limit Value
BLV	Biological Limit Value
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
CMR	Carcinogenic, Mutagenic and Reprotoxic
DIN	German Institute for Standardization / German industrial standard
DNEL	Derived No-Effect Level
EAKV	European Waste Catalogue Directive
EC	Effective Concentration
EC	European Community
EN	European Standard
IATA-DGR	International Air Transport Association – Dangerous Goods Regulations
IBC Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code	International Maritime Code for Dangerous Goods
ISO	International Organization for Standardization
LC	Lethal Concentration
LD	Lethal Dose
MARPOL	Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OECD	Organisation for Economic Cooperation and Development
PBT	persistent, bioaccumulative, toxic
PNEC	Predicted No Effect Concentration

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 /
Rules and Regulations



Article No.:	PW08000AFJ10	AC ExoBloc Turbo	
Print date:	28.02.2023	Revision date: 27.02.2023	56142 US
Version:	15.0000	Issue date: 10.02.2023	Page 9 / 9

REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
UN	United Nations
VOC	Volatile Organic Compounds
vPvB	very persistent and very bioaccumulative

Further information

Classification according to Regulation (EC) No 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in section 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

* Data changed compared with the previous version