SAFETY DATA SHEET

Version #: 07 Issue date: 05-29-2019 Revision date: 07-26-2023 Supersedes date: 07-13-2023

| SECTION 1: Identification | of the substance/mixture and of the company/undertaking |
|--|---|
| 1.1. Product identifier | |
| Trade name or designation of the mixture | DEVCON® Aluminum Liquid (F-2) Resin |
| Registration number | - |
| Synonyms | None. |
| SKU# | 0103 |
| 1.2. Relevant identified uses of t | he substance or mixture and uses advised against |
| Identified uses | Not available. |
| Uses advised against | None known. |
| 1.3. Details of the supplier of the | e safety data sheet |
| Company Name | ITW Performance Polymers |
| Address | Bay 150 |
| | Shannon Industrial Estate |
| | Co. Clare |
| | Ireland |
| | V14 DF82 |
| Contact Person | Customer Service |
| Telephone Number | 353(61)771500 |
| | 353(61)471285 |
| Email | customerservice.shannon@itwpp.com |
| Emergency Phone Number | 44(0) 1235 239 670 (24 hours) |
| 1.4. Emergency telephone numb General in EU | ner 112 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.) |
| Austria National Poisons Information Center | +431 406 4343 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.) |
| Belgium National Poisons Control Center | 070 245 245 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.) |
| Bulgaria National Toxicological Information Center | +359 2 9154 233 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.) |
| Croatia Poisons Information Center | +385 1 2348 342 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.) |
| Cyprus Poison Center | 1401 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.) |
| Czech Republic National Poisons Information Center | +420 224 919 293, or +420 224 915 402 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.) |
| Denmark National Poisons Control Center | +45 82 12 12 12 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.) |
| Estonia National Poisons Information Center | 16662 or abroad: (+372) 626 9390 (Monday 9:00AM to Saturday 9:00AM (closed on Sundays and on national holidays). SDS/Product information may not be available for the Emergency Service.) |
| Finland National Poison Information Center | (09) 471 977 (direct) or (09) 4711 (exchange) (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.) |

| 1.4 | I.4. Emergency telephone number | | |
|-----|--|---|--|
| | France National Poisons Control Center | ORFILA number (INRS): + 33 (0) 1 45 42 59 59 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.) | |
| | Greece Poison Information Centre | (0030) 2107793777 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.) | |
| | Hungary National Emergency Phone Number | +36-80-201-199 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.) | |
| | Iceland Poison Center | (+354) 543 2222 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.) | |
| | Latvia Emergency medical aid | 113 | |
| | Latvia Poison and Drug Information Center | +371 67042473 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.) | |
| | Lithuania Neatidėliotina informacija apsinuodijus | +370 5 236 20 52 or +37068753378 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.) | |
| | Malta Accident and Emergency Department | 2545 4030 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.) | |
| | Netherlands National Poisons Information Center (NVIC) | NVIC: +31 (0)88 755 8000 (Only for the purpose of informing medical personnel in cases of acute intoxications) | |
| | Norway Norwegian Poison Information Center | 22 59 13 00 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.) | |
| | Portugal Poison Center | 800 250 250 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.) | |
| | Romania Biroul RSI si Informare Toxicologica | 021.318.36.06 (Available 8:00AM-3:00PM. SDS/Product information may not be available for the Emergency Service.) | |
| | Slovakia National Toxicological Information Center | +421 2 5477 4166 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.) | |
| | Spain Toxicology Information Service | + 34 91 562 04 20 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.) | |
| | Sweden National Poison Information Center | 112 - and ask for Poison Information (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.) | |
| | Switzerland Tox Info Suisse | 145 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.) | |
| | | | |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

| Health hazards | | |
|-----------------------------------|------------|---|
| Skin corrosion/irritation | Category 2 | H315 - Causes skin irritation. |
| Serious eye damage/eye irritation | Category 2 | H319 - Causes serious eye irritation. |
| Skin sensitization | Category 1 | H317 - May cause an allergic skin reaction. |

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended UFI:

Austria: VVF0-E076-J00C-8TWU Belgium: VVF0-E076-J00C-8TWU Bulgaria: VVF0-E076-J00C-8TWU Croatia: VVF0-E076-J00C-8TWU Cyprus: VVF0-E076-J00C-8TWU Czech Republic: VVF0-E076-J00C-8TWU Denmark: VVF0-E076-J00C-8TWU Estonia: VVF0-E076-J00C-8TWU EU: VVF0-E076-J00C-8TWU Finland: VVF0-E076-J00C-8TWU France: VVF0-E076-J00C-8TWU Germany: VVF0-E076-J00C-8TWU Greece: VVF0-E076-J00C-8TWU Hungary: VVF0-E076-J00C-8TWU Iceland: VVF0-E076-J00C-8TWU Ireland: VVF0-E076-J00C-8TWU Italy: VVF0-E076-J00C-8TWU Latvia: VVF0-E076-J00C-8TWU Lithuania: VVF0-E076-J00C-8TWU Luxembourg: VVF0-E076-J00C-8TWU Malta: VVF0-E076-J00C-8TWU Netherlands: VVF0-E076-J00C-8TWU Norway: VVF0-E076-J00C-8TWU Poland: VVF0-E076-J00C-8TWU Portugal: VVF0-E076-J00C-8TWU Romania: VVF0-E076-J00C-8TWU Slovakia: VVF0-E076-J00C-8TWU Slovenia: VVF0-E076-J00C-8TWU Spain: VVF0-E076-J00C-8TWU Sweden: VVF0-E076-J00C-8TWU

Contains:

Hazard pictograms

Alkyl Glycidyl Ether, Aluminum Flake, Calcium Carbonate, Epoxy Resin: reaction product of bisphenol A and epichlorohydrin (refer to epichlorohydrin)



Signal word

Hazard statements

| H315 |
|------|
| H317 |
| H319 |

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

Precautionary statements

Prevention

| Frevention | |
|---|--|
| P261 | Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. |
| P264 P272 P280 P280 | Contaminated work clothing should not be allowed out of the workplace. Wear eye protection/face protection. Wear protective gloves. |
| Response | |
| P302 + P352 P305 + P351 + P338 | IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P333 + P313 P337 + P313 P362 + P364 | If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. |
| Storage | Not available. |
| Disposal | |
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Supplemental label information | None. |
| 2.3. Other hazards | This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII. The mixture does not contain any substances included in the list established in accordance with REACH Article 59(1) for having endocrine disrupting properties at a concentration equal to or greater than 0.1% by weight. |
| | |

| SECTION 3: Composition | | | ingreatents | | | |
|--|---|---|--|---|---------------------|-------------|
| 3.2. Mixtures | | | | | | |
| General information | | | | | | |
| Chemical name | | % | | REACH Registration No | | Notes |
| Aluminum Flake | | 30 - 60 | 7429-90-5 231-072-3 | - | 013-002-00-1 | |
| Class | | | 1;H228, Pyr. Sol. 1;H quatic Chronic 1;H41 | 1250, Water-React. 2;H26 0 | 1, Aquatic Acute | |
| Epoxy Resin: reaction produc bisphenol A and epichlorohy (refer to epichlorohydrin) | drin | 30 - 60 | 25068-38-6 - | 01-2119456619-26-000 | 0 - | |
| | ification: (| | | 319, Skin Sens. 1;H317 | | |
| Calcium Carbonate | | 10 - 30 | 1317-65-3 215-279-6 | - | - | |
| Class | ification: - | • | | | | |
| Alkyl Glycidyl Ether | | 1 - 5 | 68609-97-2 271-846-8 | - | 603-103-00-4 | |
| | | Skin Irrit. 2 | 2;H315, Skin Sens. 1; | H317 | | |
| 2-butoxyethanol; ethylenegly monobutyl ether; butyl cellos | olve | < 0,2 | 111-76-2 203-905-0 | - | 603-014-00-0 | # |
| Class | r | ng/kg bw) | | mg/kg bw), Acute Tox. 3;H Acute Tox. 4;H332;(ATE: | | |
| Other components below rep levels | ortable | 1 - <3 | | | | |
| ist of abbreviations and symb | ole that m | av ho us | ad above | | | |
| vPvB: very persistent and ve PBT: persistent, bioaccumula #: This substance has been a All concentrations are in perc | ative and to assigned U cent by wei | oxic substa Inion work ght unless | ance. place exposure limit(s ingredient is a gas. | Gas concentrations are in | percent by volume. | |
| Composition comments | | text for al | I H-statements is disp | played in section 16. | | |
| SECTION 4: First aid mea | asures | | | | | |
| General information | | | | are of the material(s) invol ed clothing before reuse. | ved, and take preca | utions to |
| 4.1. Description of first aid mea | | | | | | |
| Inhalation | | | | mptoms develop or persis | | |
| Skin contact | eczema | or other a | | iately and wash skin with medical attention and take | | |
| Eye contact | Immedi | ately flush | eyes with plenty of v | vater for at least 15 minute ng. Get medical attention i | | |
| Ingestion | Rinse m | nouth. Get | t medical attention if s | symptoms occur. | | |
| 4.2. Most important symptoms and effects, both acute and delayed | | | | nclude stinging, tearing, re ss and pain. May cause a | | |
| 4.3. Indication of any mmediate medical attention and special treatment needed | | | upportive measures e delayed. | and treat symptomatically. | Keep victim under o | bservation. |
| SECTION 5: Firefighting | measure | s | | | | |
| General fire hazards | | | r explosion hazards n | oted. | | |
| 5.1. Extinguishing media Suitable extinguishing | | | | r. Carbon dioxide (CO2). | | |
| media Unsuitable extinguishing media | Do not i | use water | jet as an extinguishe | r, as this will spread the fir | e. | |
| 5.2. Special hazards arising from the substance or mixture | During 1 | fire, gases | hazardous to health | may be formed. | | |

from the substance or mixture

| 5.3. Advice for firefighters | | | | |
|---|--|--|--|--|
| Special protective equipment for firefighters | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. | | | |
| Special fire fighting procedures | Use water spray to cool unopened containers. | | | |
| Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials. | | | |
| SECTION 6: Accidental re | lease measures | | | |
| 6.1. Personal precautions, prote | ctive equipment and emergency procedures | | | |
| For non-emergency personnel | Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material. | | | |
| For emergency responders | Keep unnecessary personnel away. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS. | | | |
| 6.2. Environmental precautions | Avoid discharge into drains, water courses or onto the ground. | | | |
| 6.3. Methods and material for containment and cleaning up | Large Spills: Stop the flow of material, if this is without risk. Following product recovery, flush area with water. | | | |
| | Small Spills: Clean surface thoroughly to remove residual contamination. | | | |
| | Never return spills to original containers for re-use. | | | |
| 6.4. Reference to other sections | For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS. | | | |
| SECTION 7: Handling and | storage | | | |
| 7.1. Precautions for safe handling | Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. | | | |
| 7.2. Conditions for safe storage, including any incompatibilities | Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). | | | |
| 7.3. Specific end use(s) | Observe industrial sector guidance on best practices. | | | |
| SECTION 8: Exposure cor | ntrols/personal protection | | | |
| 8.1. Control parameters | | | | |
| | | | | |

Occupational exposure limits

Austria. MAK List, OEL Ordinance (GwV), BGBI. II, no. 184/2001, as amended

| Components | Туре | Value | Form |
|---|------|-----------|----------------------|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | МАК | 98 mg/m3 | |
| | | 20 ppm | |
| | STEL | 200 mg/m3 | |
| | | 40 ppm | |
| Aluminum Flake (CAS 7429-90-5) | МАК | 5 mg/m3 | Respirable fraction. |
| | | 10 mg/m3 | Inhalable fraction. |
| | STEL | 20 mg/m3 | Inhalable fraction. |
| | | 10 mg/m3 | Respirable fraction. |
| Calcium Carbonate (CAS 1317-65-3) | МАК | 5 mg/m3 | Respirable fraction. |
| | | 10 mg/m3 | Inhalable fraction. |
| | STEL | 20 mg/m3 | Inhalable fraction. |
| | | 10 mg/m3 | Respirable fraction. |
| | | | |

Belgium. OEL. Exposure Limit Values to Chemical Substances at Work, Code of Well-being at work, Book VI, Title 1 - Chemical agents, as amended

| Components | Туре | Value | Form |
|---|------|-----------|----------------------|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | STEL | 246 mg/m3 | |
| | | 50 ppm | |
| | TWA | 98 mg/m3 | |
| | | 20 ppm | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 1 mg/m3 | Respirable fraction. |
| Calcium Carbonate (CAS 1317-65-3) | TWA | 10 mg/m3 | |

Bulgaria. OELs. Ordinance No 13 on protection of workers against risks of exposure to chemical agents at work, as amended

| Components | Туре | Value | Form |
|---|------|--------------|----------------------|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | STEL | 246 mg/m3 | |
| | | 50 ppm | |
| | TWA | 98 mg/m3 | |
| | | 20 ppm | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 2 mg/m3 | |
| | | 10 mg/m3 | Inhalable fraction. |
| | | 1,5 mg/m3 | Respirable fraction. |
| Calcium Carbonate (CAS 1317-65-3) | TWA | 1 fibers/cm3 | Respirable fraction. |
| | | 10 mg/m3 | Inhalable fraction. |
| | | 10 mg/m3 | |

Croatia. OELs (GVI). Regulation on Protection of Workers against Exposure to Dangerous Chemicals at Work, OELs and Biological Limit Values, Annex I (NN 91/2018), as amended

| Components | Туре | Value | Form |
|---|------|-----------|------------------|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | MAC | 98 mg/m3 | |
| | | 20 ppm | |
| | STEL | 246 mg/m3 | |
| | | 50 ppm | |
| Aluminum Flake (CAS 7429-90-5) | MAC | 4 mg/m3 | Respirable dust. |
| | | 10 mg/m3 | Total dust. |
| Calcium Carbonate (CAS 1317-65-3) | MAC | 4 mg/m3 | Respirable dust. |
| | | 10 mg/m3 | Total dust. |

Cyprus. OELs. Occupational Exposure Limit Values of Chemicals at Work (Safety and Health at Work (Chem. Agents) Reg., Ann. 1, R.A.A. 268/2001, as amended)

| Components | Туре | Value | |
|---|------|-----------|--|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | STEL | 246 mg/m3 | |
| | | 50 ppm | |
| | TWA | 98 mg/m3 | |
| | | 20 ppm | |

Czech Republic. Occupational exposure limit values of chemicals at work (Decree on protection of health at work, 361/2007, Annex 2, Part A & Annex 3, Part A, as amended)

| Components | Туре | Value | Form | |
|---|---------|-----------|-------|--|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | Ceiling | 200 mg/m3 | | |
| | TWA | 100 mg/m3 | | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 10 mg/m3 | Dust. | |
| Calcium Carbonate (CAS 1317-65-3) | TWA | 10 mg/m3 | Dust. | |

Denmark. Work Environment Authority. Exposure Limits for Substances & Materials, Annex 2

| Components | Туре | Value | Form |
|---|------|-----------|------------------------------|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | TLV | 98 mg/m3 | |
| | | 20 ppm | |
| Aluminum Flake (CAS 7429-90-5) | TLV | 5 mg/m3 | Fume. |
| | | 5 mg/m3 | Dust and fume. |
| | | 2 mg/m3 | Respirable dust and/or fume. |
| Calcium Carbonate (CAS 1317-65-3) | TLV | 5 mg/m3 | Respirable dust. |
| | | 10 mg/m3 | Dust. |
| | | 0,5 mg/m3 | Respirable quartz fraction. |

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances (Regulation No. 105/2001, Annex), as amended

| Components | Гуре | value | Form |
|---|------|-----------|---------------------------------|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | STEL | 246 mg/m3 | |
| | | 50 ppm | |
| | TWA | 98 mg/m3 | |
| | | 20 ppm | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 4 mg/m3 | Fine dust, respiratory fraction |
| | | 10 mg/m3 | Total dust. |
| Calcium Carbonate (CAS 1317-65-3) | TWA | 5 mg/m3 | Fine dust. |
| | | 10 mg/m3 | |

Finland. HTP-arvot, App 3., Binding Limit Values, Social Affairs and Ministry of Health

| Components | Туре | Value | Form |
|---|------|-----------|---------------|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | STEL | 250 mg/m3 | |
| | | 50 ppm | |
| | TWA | 98 mg/m3 | |
| | | 20 ppm | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 1,5 mg/m3 | Welding fume. |
| Calcium Carbonate (CAS 1317-65-3) | TWA | 10 mg/m3 | Dust. |

| France. OELs. Occupatio Components | onal Exposure Limits as Prescribed b Type | y Art. R.4412-149 of Labor Code Value | e, as amended |
|--|--|--|------------------|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CA 111-76-2) | VLE | 246 mg/m3 | |
| | | 50 ppm | |
| | VME | 49 mg/m3 | |
| | | 10 ppm | |
| France. Threshold Limit | Values (VLEP) for Occupational Expo | osure to Chemicals in France, IN | IRS ED 984 |
| Components | Туре | Value | Form |
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CA 111-76-2) | VLE | 246 mg/m3 | |
| Regulatory status: | Regulatory binding (VRC) | | |
| | | 50 ppm | |
| Regulatory status: | Regulatory binding (VRC) | | |
| | VME | 49 mg/m3 | |
| Regulatory status: | Regulatory binding (VRC) | | |
| | | 10 ppm | |
| Regulatory status: | Regulatory binding (VRC) | | |
| Aluminum Flake (CAS 7429-90-5) | VME | 5 mg/m3 | Welding fume. |
| Regulatory status: | Indicative limit (VL) | | |
| | | 5 mg/m3 | Dust. |
| Regulatory status: | Indicative limit (VL) | | |
| | | 10 mg/m3 | |
| Regulatory status: | Indicative limit (VL) | | |
| Calcium Carbonate (CAS 1317-65-3) | VME | 4 mg/m3 | Total dust. |
| Regulatory status: | Regulatory binding (VRC) | | |
| | | 0,9 mg/m3 | Respirable dust. |
| Regulatory status: | Regulatory binding (VRC) | | |

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG), as updated

| Components | Туре | Value | Form |
|---|--------------------------------|------------|----------------------|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | TWA | 49 mg/m3 | |
| | | 10 ppm | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 4 mg/m3 | Inhalable dust. |
| | | 1,5 mg/m3 | Respirable dust. |
| Calcium Carbonate (CAS 1317-65-3) | TWA | 4 mg/m3 | Inhalable dust. |
| Germany. TRGS 900, Limit Values i | n the Ambient Air at the Workp | lace | |
| Components | Туре | Value | Form |
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | AGW | 49 mg/m3 | |
| | | 10 ppm | |
| Aluminum Flake (CAS 7429-90-5) | AGW | 10 mg/m3 | Inhalable fraction. |
| | | 1,25 mg/m3 | Respirable fraction. |
| Calcium Carbonate (CAS 1317-65-3) | AGW | 10 mg/m3 | Inhalable fraction. |

| Components | in the Ambient Air at the Workplac Type | Value | Form |
|---|--|--------------------------------------|---------------------------------|
| | | 1,25 mg/m3 | Respirable fraction. |
| Greece. OELs, Presidential Decree | e No. 307/1986, as amended | | |
| Components | Туре | Value | Form |
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | TWA | 120 mg/m3 | |
| | | 25 ppm | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 5 mg/m3 | Respirable. |
| | | 10 mg/m3 | Pyrophoric powder. |
| | | 10 mg/m3 | Inhalable |
| | | 10 mg/m3 | Welding fume. |
| Calcium Carbonate (CAS 1317-65-3) | TWA | 5 mg/m3 | Respirable. |
| | | 10 mg/m3 | Inhalable |
| Hungary. OELs. Decree on protec Components | tion of workers exposed to chemic Type | al agents (5/2020. (II.6)), Value | Annex 1&2, as amended Form |
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | STEL | 246 mg/m3 | |
| | TWA | 98 mg/m3 | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 1 mg/m3 | Respirable. |
| Calcium Carbonate (CAS 1317-65-3) | TWA | 10 mg/m3 | |
| lceland. OELs. Regulation 390/200 Components | 9 on Pollution Limits and Measure Type | es to Reduce Pollution at Value | the Workplace, as amend Form |
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | STEL | 246 mg/m3 | |
| , | | 50 ppm | |
| | TWA | 100 mg/m3 | |
| | | 20 ppm | |
| Aluminum Flake (CAS 7429-90-5) | STEL | 10 mg/m3 | Dust. |
| | TWA | 5 mg/m3 | Dust. |
| reland. OELVs, Schedules 1 & 2, Components | Code of Practice for Chemical Age Type | nts and Carcinogens Reg Value | gulations Form |
| 2-butoxyethanol; ethyleneglycol monobutyl | STEL | 246 mg/m3 | |
| ether; butyl cellosolve (CAS 111-76-2) | | | |
| | | 50 ppm | |
| | TWA | 98 mg/m3 | |
| | | 20 ppm | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 1 mg/m3 | Respirable fraction. |
| Calcium Carbonate (CAS 1317-65-3) | TWA | 4 mg/m3 | Respirable dust. |
| | | 10 mg/m3 | Total inhalable dust. |
| | | | |

| Components | Туре | Value | Form |
|---|------------------------------|------------------------------|------------------------------|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | STEL | 246 mg/m3 | |
| | | 50 ppm | |
| | TWA | 98 mg/m3 | |
| | | 20 ppm | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 1 mg/m3 | Respirable fraction. |
| Latvia. OELs. Occupational Expos 1), as amended | sure Limits of Chemical Subs | tances at Workplace (Reg. No | o. 325/ 2007, L.V. 80, Annex |
| Components | Туре | Value | |
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | STEL | 246 mg/m3 | |
| | | 50 ppm | |
| | TWA | 98 mg/m3 | |
| | | 20 ppm | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 2 mg/m3 | |
| Lithuania. OELs. Occupational Ex | posuro Limit Valuos for Chon | nical Substances (Hygione No | mm UN 22:2011: Order No |

| Components | Туре | Value | Form |
|---|------|-----------|----------------------|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | STEL | 100 mg/m3 | |
| | | 20 ppm | |
| | TWA | 50 mg/m3 | |
| | | 10 ppm | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 5 mg/m3 | Inhalable fraction. |
| | | 2 mg/m3 | Respirable fraction. |
| Calcium Carbonate (CAS 1317-65-3) | TWA | 5 mg/m3 | Respirable fraction. |
| | | 10 mg/m3 | Inhalable fraction. |

Luxembourg. OELs. Binding Occupational Exposure Limit Values (Annex I), G.D.R. of 14 November 2016, OJ Memorial A, n ° 235/2016, as amended

| Components | Туре | Value | |
|---|------|-----------|--|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | STEL | 246 mg/m3 | |
| | | 50 ppm | |
| | TWA | 98 mg/m3 | |
| | | 20 ppm | |

Malta. OELs. Protection of Health and Safety of Workers from Risks related to Chemical Agents at Work (L.N 227/2003 Schedules I and V), as amended

| Components | Туре | Value | |
|---|------|-----------|--|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | STEL | 246 mg/m3 | |
| | | 50 ppm | |
| | TWA | 98 mg/m3 | |

| Components | Туре | Value | |
|---|--------------------------------------|--------------------------------|---------------------------|
| | | 20 ppm | |
| Netherlands. OELs per Annex XIII | of Working Conditions Regul | ation (Staatscourant no. 252, | 29 December 2006), as |
| amended Components | Туре | Value | |
| 2-butoxyethanol; | STEL | 246 mg/m3 | |
| ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | SILL | 240 mg/m3 | |
| | TWA | 100 mg/m3 | |
| Norway. Regulation No. 1358 on N nfection Groups for Biological Fa | | Physical and Chemical Facto | ors in Work Environment a |
| Components | Туре | Value | Form |
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | TLV | 50 mg/m3 | |
| Aluminum Flake (CAS | TLV | 10 ppm 5 mg/m3 | Pyrophoric powder. |
| 7429-90-5) | ΙLV | 5 mg/m5 | r yrophone powder. |
| | | 5 mg/m3 | Welding fume. |
| Poland. Maximum permissible cor | centrations and intensities o | f harmful factors in the work | environment (Dz.U.Poz. |
| I286/2018, Annex 1) Components | Туре | Value | Form |
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS | STEL | 200 mg/m3 | |
| 111-76-2) | TWA | 98 mg/m3 | |
| Aluminum Flake (CAS | TWA | 2,5 mg/m3 | Inhalable fraction. |
| 7429-90-5) | | 1,2 mg/m3 | Respirable fraction. |
| Portugal. Decree-Law No. 24/2012 | Occupational Exposure Lim | it Values. Annex II. as amende | ed |
| Components | Туре | Value | |
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | STEL | 246 mg/m3 | |
| , | | 50 ppm | |
| | TWA | 98 mg/m3 | |
| | | 20 ppm | |
| Portugal. VLEs. Norm on occupati Components | onal exposure to chemical ao Type | gents (NP 1796-2014) Value | Form |
| 2-butoxyethanol; | TWA | 20 ppm | |
| ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | | 20 ppm | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 1 mg/m3 | Respirable fraction. |
| Romania. OELs. Limit Values of C amended) | | | |
| Components | Туре | Value | Form |
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | STEL | 246 mg/m3 | |
| , | | 50 ppm | |

Romania. OELs. Limit Values of Chemical Agents at Workplace (Regulation 1.218/2006, M.O 845, Annex 1, 3&4, as amended)

| Components | Туре | Value | Form |
|--------------------------------------|------|----------|---------------------|
| | TWA | 98 mg/m3 | |
| | | 20 ppm | |
| Aluminum Flake (CAS 7429-90-5) | STEL | 3 mg/m3 | Fume. |
| | | 10 mg/m3 | Dust. |
| | TWA | 3 mg/m3 | Dust. |
| | | 1 mg/m3 | Fume. |
| Calcium Carbonate (CAS 1317-65-3) | TWA | 10 mg/m3 | Inhalable fraction. |

Slovakia. OELs. Maximum permissible exposure limits for chemical factors in workplace air (Regulation No 355/2006, Annex 1, Table 1, as amended)

| Components | Туре | Value | Form |
|---|------|-----------|----------------------|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | STEL | 246 mg/m3 | |
| | | 50 ppm | |
| | TWA | 98 mg/m3 | |
| | | 20 ppm | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 4 mg/m3 | Inhalable fraction. |
| | | 1,5 mg/m3 | Respirable fraction. |
| Calcium Carbonate (CAS 1317-65-3) | TWA | 10 mg/m3 | |

Slovenia. OELs. Occupational Exposure Limits of Chemicals at Workplace (Reg. on Protection of Workers from Risks due to Exp. to Chemicals at Work, Annex I), as amended

| Components | Туре | Value | Form |
|---|------|------------|----------------------|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | TWA | 98 mg/m3 | |
| | | 20 ppm | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 10 mg/m3 | Inhalable fraction. |
| | | 1,25 mg/m3 | Respirable fraction. |
| Calcium Carbonate (CAS 1317-65-3) | TWA | 10 mg/m3 | Inhalable fraction. |
| | | 1,25 mg/m3 | Respirable fraction. |

Spain. OELs. INSST, Límites de Exposición Profesional Para Agentes Químicos, Table 1-Valores Límites Ambientales (VLAs)

| Components | Туре | Value | Form |
|---|------|-----------|----------------------|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | STEL | 245 mg/m3 | |
| | | 50 ppm | |
| | TWA | 98 mg/m3 | |
| | | 20 ppm | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 1 mg/m3 | Respirable fraction. |
| Calcium Carbonate (CAS 1317-65-3) | TWA | 3 mg/m3 | Respirable fraction. |
| | | 10 mg/m3 | Inhalable fraction. |

| Components | Туре | Value | Form | |
|--|--|--|---|--|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS I11-76-2) | Ceiling | 246 mg/m3 | | |
| | | 50 ppm | | |
| | TWA | 50 mg/m3 | | |
| | | 10 ppm | | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 5 mg/m3 | Total dust. | |
| | | 2 mg/m3 | Respirable dust. | |
| Switzerland. SUVA Grenzwerte am Components | n Arbeitsplatz: Aktuelle MAK-V Type | Verte Value | Form | |
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | STEL | 98 mg/m3 | | |
| | | 20 ppm | | |
| | TWA | 49 mg/m3 | | |
| | | 10 ppm | | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 3 mg/m3 | Respirable fraction. | |
| Calcium Carbonate (CAS 1317-65-3) | TWA | 3 mg/m3 | Respirable dust. | |
| | | 10 mg/m3 | Inhalable dust. | |
| UK. OELs. Workplace Exposure Li Components | mits (WELs) (EH40/2005 (Fou Type | rth Edition 2020)), Table 1 Value | Form | |
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | STEL | 246 mg/m3 | | |
| | TWA | 50 ppm | | |
| | IVVA | 123 mg/m3 | | |
| | TWA | 25 ppm 4 mg/m3 | Reenirable duct | |
| Aluminum Flake (CAS | IVVA | 4 mg/ms | Respirable dust. | |
| | | | | |
| | | 10 mg/m3 | Inhalable dust. | |
| 7429-90-5) Calcium Carbonate (CAS | TWA | 10 mg/m3 4 mg/m3 | Inhalable dust. Respirable dust. | |
| 7429-90-5) Calcium Carbonate (CAS | TWA | - | | |
| 7429-90-5) Calcium Carbonate (CAS | TWA | 4 mg/m3 4 mg/m3 10 mg/m3 | Respirable dust. | |
| 7429-90-5) Calcium Carbonate (CAS | TWA | 4 mg/m3 4 mg/m3 | Respirable dust. Respirable. | |
| 7429-90-5) Calcium Carbonate (CAS 1317-65-3) EU. Indicative Exposure Limit Valu | | 4 mg/m3 4 mg/m3 10 mg/m3 10 mg/m3 | Respirable dust. Respirable. Inhalable dust. Inhalable | |
| 7429-90-5) Calcium Carbonate (CAS 1317-65-3) EU. Indicative Exposure Limit Valu Components 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS | ues in Directives 91/322/EEC, : | 4 mg/m3 4 mg/m3 10 mg/m3 10 mg/m3 2000/39/EC, 2006/15/EC, 2009 | Respirable dust. Respirable. Inhalable dust. Inhalable | |
| 7429-90-5) Calcium Carbonate (CAS 1317-65-3) EU. Indicative Exposure Limit Valu Components 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS | ues in Directives 91/322/EEC, Type | 4 mg/m3 4 mg/m3 10 mg/m3 10 mg/m3 2000/39/EC, 2006/15/EC, 2009 Value | Respirable dust. Respirable. Inhalable dust. Inhalable | |
| Aluminum Flake (CAS 7429-90-5) Calcium Carbonate (CAS 1317-65-3) EU. Indicative Exposure Limit Valu Components 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | ues in Directives 91/322/EEC, Type | 4 mg/m3 4 mg/m3 10 mg/m3 10 mg/m3 2000/39/EC, 2006/15/EC, 2009 Value 246 mg/m3 | Respirable dust. Respirable. Inhalable dust. Inhalable | |

Biological limit values

7429-90-5)

| Components | Value | Determinant | Specimen | Sampling Time |
|---|-----------------------|---|------------------------|---------------|
| Aluminum Flake (CAS 7429-90-5) | 200 mg/l | Aluminum | Urine | * |
| * - For sampling details, plea | ase see the source do | ocument. | | |
| Czech Republic. BELs. Go | vernment Decree 4 | 32/2003 Sb., as ame | nded | |
| Components | Value | Determinant | Specimen | Sampling Time |
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | 200 mg/g | Butoxyacetic acid (with hydrolysis) | Creatinine in urine | * |
| | 0,17 mmol/mmol | Butoxyacetic acid (with hydrolysis) | Creatinine in urine | * |
| * - For sampling details, plea | ase see the source do | ocument. | | |
| Germany. TRGS 903, BAT | List (Biological Lim | it Values) | | |
| Components | Value | Determinant | Specimen | Sampling Time |
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | 150 mg/g | Butoxyessigsä ure (nach Hydrolyse) | Creatinine in urine | * |
| Aluminum Flake (CAS | 50 µg/g | Aluminium | Creatinine in | * |

* - For sampling details, please see the source document.

| Hungary. BELs. Decree on protection of workers exposed to chemical agents (5/2020. (II.6)), Annex 3&4, as amended | | | | |
|---|----------------|-------------|------------------------|---------------|
| Components | Value | Determinant | Specimen | Sampling Time |
| Aluminum Flake (CAS 7429-90-5) | 0,25 µmol/mmol | Aluminum | Creatinine in urine | * |
| | 0,06 mg/g | Aluminum | Creatinine in urine | * |

urine

* - For sampling details, please see the source document.

Slovakia. BLVs (Biological Limit Value). Regulation no. 355/2006 concerning protection of workers exposed to chemical agents, Annex 2

| Components | Value | Determinant | Specimen | Sampling Time |
|-----------------------------------|---------|-------------|---------------------|---------------|
| Aluminum Flake (CAS 7429-90-5) | 60 µg/g | Aluminum | Creatinine in urine | * |

* - For sampling details, please see the source document.

Spain. BELs. INSST, Límites de Exposición Profesional Para Agentes Químicos, Table 3-Valores Límite Biológicos (VLB) Components Value Determinant Specimen Sampling Time

| Componente | T di do | Dotominant | opeennen | eamping mile | |
|-----------------------------|----------|----------------|---------------|--------------|--|
| 2-butoxyethanol; | 200 mg/g | Ácido | Creatinine in | * | |
| ethyleneglycol monobutyl | | butoxiacético, | urine | | |
| ether; butyl cellosolve (CA | S | con hidrólisis | | | |
| 111-76-2) | | | | | |

* - For sampling details, please see the source document.

Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle BAT-Werte

| Components | Value | Determinant | Specimen | Sampling Time |
|---|----------|--|------------------------|---------------|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | 150 mg/g | Butoxyessigsä ure (nach Hydrolyse) | Creatinine in urine | * |
| Aluminum Flake (CAS 7429-90-5) | 50 µg/g | Aluminium | Creatinine in urine | * |

* - For sampling details, please see the source document.

| Components | nitoring Guidance Va Value | Determi | | Specimen | Sampling Time | |
|--|--------------------------------|-----------------|-----------|---------------------|---------------|--|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CA 111-76-2) | | Butoxya acid | cetic | Creatinine in urine | * | |
| * - For sampling details, ple | ease see the source d | ocument. | | | | |
| commended monitoring ocedures | Follow standard | monitoring pr | ocedures. | | | |
| rived no effect levels NELs) | Not available. | | | | | |
| edicted no effect ncentrations (PNECs) | Not available. | | | | | |
| posure guidelines | | | | | | |
| Austria MAK: Skin desig | nation | | | | | |
| 2-butoxyethanol; ethyl cellosolve (CAS 111-7 Belgium OELs: Skin desi | 76-2) | ether; butyl | Can be | absorbed throug | gh the skin. | |
| 2-butoxyethanol; ethyl cellosolve (CAS 111-7 Bulgaria OELs: Skin desi | eneglycol monobutyl e '6-2) | ether; butyl | Can be | absorbed throug | gh the skin. | |
| 2-butoxyethanol; ethyl cellosolve (CAS 111-7 Croatia ELVs: Skin desig | eneglycol monobutyl e '6-2) | ether; butyl | Can be | absorbed throug | gh the skin. | |
| 2-butoxyethanol; ethyl cellosolve (CAS 111-7 Czech Republic PELs: SI | 76-2) | ether; butyl | Can be | absorbed throug | gh the skin. | |
| 2-butoxyethanol; ethyl cellosolve (CAS 111-7 Denmark GV: Skin desig | 76-2) | ether; butyl | Can be | absorbed throug | gh the skin. | |
| 2-butoxyethanol; ethyl cellosolve (CAS 111-7 Estonia OELs: Skin desig | eneglycol monobutyl e '6-2) | ether; butyl | Can be | absorbed throug | gh the skin. | |
| 2-butoxyethanol; ethyl cellosolve (CAS 111-7 | eneglycol monobutyl e '6-2) | ether; butyl | Can be | absorbed throug | gh the skin. | |
| EU Exposure Limit Value | - | | <u> </u> | | | |
| 2-butoxyethanol; ethyl cellosolve (CAS 111-7 Finland Exposure Limit V | 76-2) | - | Can be | absorbed throug | jh the skin. | |
| 2-butoxyethanol; ethyl cellosolve (CAS 111-7 France INRS: Skin design | eneglycol monobutyl e '6-2) | | Can be | absorbed throug | gh the skin. | |
| 2-butoxyethanol; ethyl cellosolve (CAS 111-7 | eneglycol monobutyl 6 '6-2) | - | Can be | absorbed throug | gh the skin. | |
| France Mandatory OELs 2-butoxyethanol; ethyl cellosolve (CAS 111-7 | eneglycol monobutyl e | | Can be | absorbed throug | gh the skin. | |
| Germany DFG MAK (advi 2-butoxyethanol; ethyl | isory): Skin designat | | Can be | absorbed throug | gh the skin. | |
| cellosolve (CAS 111-7 Germany TRGS 900 Limi | t Values: Skin desigr | | _ | | | |
| 2-butoxyethanol; ethyl cellosolve (CAS 111-7 Greece OEL: Skin design | 76-2) | ether; butyl | Can be | absorbed throug | gh the skin. | |
| 2-butoxyethanol; ethyl cellosolve (CAS 111-7 Hungary OELs: Skin des | eneglycol monobutyl e '6-2) | ether; butyl | Can be | absorbed throug | gh the skin. | |
| 2-butoxyethanol; ethyl cellosolve (CAS 111-7 Iceland OELs: Skin desig | eneglycol monobutyl e '6-2) | ether; butyl | Can be | absorbed throug | gh the skin. | |
| 2-butoxyethanol; ethyl cellosolve (CAS 111-7 | eneglycol monobutyl e | ether; butyl | Can be | absorbed throug | gh the skin. | |

| Ireland Exposure Limit Value | es: Skin designation | | | |
|--|--|---|--|--|
| cellosolve (CAS 111-76-2 | • | Can be absorbed through the skin. | | |
| Italy OELs: Skin designation | | | | |
| cellosolve (CAS 111-76-2 | | Danger of cutaneous absorption | | |
| Latvia OELs: Skin designation | | | | |
| cellosolve (CAS 111-76-2 | | Can be absorbed through the skin. | | |
| Lithuania OELs: Skin design | | Can be abaarhed through the skin | | |
| cellosolve (CAS 111-76-2 Luxembourg OELs: Skin des | | Can be absorbed through the skin. | | |
| 2-butoxyethanol; ethylene cellosolve (CAS 111-76-2 Malta OELs: Skin designatio | | Can be absorbed through the skin. | | |
| • | glycol monobutyl ether; butyl | Can be absorbed through the skin. | | |
| Netherlands OELs (binding) | Skin designation | | | |
| cellosolve (CAS 111-76-2 | | Can be absorbed through the skin. | | |
| Norway Exposure Limit Valu | v | | | |
| 2-butoxyethanol; ethylene cellosolve (CAS 111-76-2 Portugal OELs: Skin designa | • | Can be absorbed through the skin. | | |
| • • | glycol monobutyl ether; butyl | Can be absorbed through the skin. | | |
| cellosolve (CAS 111-76-2 Romania OELs: Skin design |) | | | |
| - | glycol monobutyl ether; butyl | Can be absorbed through the skin. | | |
| cellosolve (CAS 111-76-2 Slovakia OELs: Skin designa | | | | |
| cellosolve (CAS 111-76-2 | | Can be absorbed through the skin. rkers against risks due to exposure to chemicals while working | | |
| (Official Gazette of the Repu | | rkers against risks due to exposure to chemicals while working | | |
| 2-butoxyethanol; ethylene cellosolve (CAS 111-76-2 | glycol monobutyl ether; butyl) | Can be absorbed through the skin. | | |
| Spain OELs: Skin designation | on | | | |
| cellosolve (CAS 111-76-2 | | Can be absorbed through the skin. | | |
| Sweden Threshold Limit Val | • | | | |
| cellosolve (CAS 111-76-2 | glycol monobutyl ether; butyl) ıes at the Workplace: Skin de | Can be absorbed through the skin. | | |
| | glycol monobutyl ether; butyl | Can be absorbed through the skin. | | |
| cellosolve (CAS 111-76-2 UK EH40 WEL: Skin designa |) | | | |
| 2-butoxyethanol; ethylene cellosolve (CAS 111-76-2 | glycol monobutyl ether; butyl) | Can be absorbed through the skin. | | |
| 8.2. Exposure controls | | | | |
| Appropriate engineering controls | applicable, use process enclos maintain airborne levels below | Id be used. Ventilation rates should be matched to conditions. If sures, local exhaust ventilation, or other engineering controls to v recommended exposure limits. If exposure limits have not been levels to an acceptable level. Provide eyewash station and safety | | |
| Individual protection measures, | such as personal protective e | quipment | | |
| General information | | ment as required. Personal protection equipment should be chosen ds and in discussion with the supplier of the personal protective | | |
| Eye/face protection | | shields (or goggles). Face shield is recommended. | | |
| Skin protection | | | | |
| - Hand protection | Wear appropriate chemical res | sistant gloves. | | |
| - Other | | sistant clothing. Use of an impervious apron is recommended. | | |
| | | | | |
| Respiratory protection | In case of insufficient ventilation, wear suitable respiratory equipment. | | | |

| Thermal hazards | Wear appropriate thermal protective clothing, when necessary. |
|---------------------------------|---|
| Hygiene measures | Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. |
| Environmental exposure controls | Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels. |

SECTION 9: Physical and chemical properties

| SECTION 5. Physical and | chemical properties | |
|---|---|--|
| 9.1. Information on basic physic | al and chemical properties | |
| Physical state | Solid. | |
| Form | Paste. | |
| Color | Grey. | |
| Odor | Slight. | |
| Melting point/freezing point | Not available. | |
| Boiling point or initial boiling point and boiling range | 608 °F (320 °C) estimated | |
| Flammability | Not available. | |
| Flash point | >399,9 °F (>204,4 °C) | |
| Auto-ignition temperature | Not available. | |
| Decomposition temperature | Not available. | |
| рН | Not available. | |
| Kinematic viscosity | Not available. | |
| Solubility | | |
| Solubility (water) | Not available. | |
| Partition coefficient (n-octanol/water) (log value) | Not available. | |
| Vapor pressure | Not available. | |
| Density and/or relative density | | |
| Density | 1,93 g/cm3 estimated | |
| Vapor density | Not available. | |
| Particle characteristics | Not available. | |
| 9.2. Other information | | |
| 9.2.1. Information with regard to physical hazard classes | No relevant additional information available. | |
| 9.2.2. Other safety characteristic | ;s | |
| Specific gravity | 1,93 estimated | |
| SECTION 10: Stability and | l reactivity | |
| 10.1. Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport. | |
| 10.2. Chemical stability | Material is stable under normal conditions. | |
| 10.3. Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. | |
| 10.4. Conditions to avoid | Contact with incompatible materials. | |
| 10.5. Incompatible materials | Strong oxidizing agents. | |
| 10.6. Hazardous decomposition products | No hazardous decomposition products are known. | |
| SECTION 11: Toxicologica | al information | |
| General information | Occupational exposure to the substance or mixture may cause adverse effects. | |
| | | |
| Information on likely routes of e | | |
| Information on likely routes of e | | |
| - | xposure | |
| Inhalation | xposure Prolonged inhalation may be harmful. | |

Symptoms

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

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

| | jjjj | ()···· |
|--|--|---|
| Acute toxicity | Not known. | |
| Components | Species | Test Results |
| 2-butoxyethanol; ethyleneglycol m | onobutyl ether; butyl cellosolve | (CAS 111-76-2) |
| <u>Acute</u> | | |
| Dermal | | |
| LD50 | Rabbit | 400 mg/kg |
| Skin corrosion/irritation | Causes skin irritation. | |
| Serious eye damage/eye irritation | Causes serious eye irritation. | |
| Respiratory sensitization | Due to partial or complete lack of data the classification is not possible. | |
| Skin sensitization | May cause an allergic skin reaction. | |
| Germ cell mutagenicity | Due to partial or complete lacl | of data the classification is not possible. |
| Carcinogenicity | Due to partial or complete lacl | of data the classification is not possible. |
| IARC Monographs. Overall I | Evaluation of Carcinogenicity | |
| 2-butoxyethanol; ethylene cellosolve (CAS 111-76-2 | eglycol monobutyl ether; butyl 2) | 3 Not classifiable as to carcinogenicity to humans. |
| Reproductive toxicity | Not applicable. | |
| Specific target organ toxicity - single exposure | Due to partial or complete lac | < of data the classification is not possible. |
| Specific target organ toxicity - repeated exposure | Due to partial or complete lac | c of data the classification is not possible. |
| Aspiration hazard | Due to partial or complete lacl | of data the classification is not possible. |
| Mixture versus substance information | No information available. | |
| 11.2. Information on other hazar | ds | |
| Endocrine disrupting properties | to human health as assessed | any substances having endocrine disrupting properties with respect in accordance with the criteria set out in Regulations (EC) No 00 and (EU) 2018/605, at a concentration equal to or greater than |
| Other information | Not available. | |
| SECTION 12: Ecological i | nformation | |
| 12.1. Toxicity | | classification criteria are not met for hazardous to the aquatic |
| 12.2. Persistence and degradability | | gradability of any ingredients in the mixture. |
| 12.3. Bioaccumulative potential | | |
| Partition coefficient | | |
| n-octanol/water (log Kow) 2-butoxyethanol; ethyleneglyc cellosolve | ol monobutyl ether; butyl | 0,83 |
| Bioconcentration factor (BCF) | Not available. | |
| 12.4. Mobility in soil | No data available. | |
| 12.5. Results of PBT and vPvB assessment | | substances assessed to be vPvB / PBT according to Regulation II. |
| 12.6. Endocrine disrupting properties | This mixture does not contain any substances having endocrine disrupting properties with respect to the environment as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight. | |
| 12.7. Other adverse effects | | tal effects (e.g. ozone depletion, photochemical ozone creation n, global warming potential) are expected from this component. |
| 12.8. Additional information | | |
| Estonia Dangerous substan | ices in soil Data | |
| 2-butoxyethanol; ethylene cellosolve (CAS 111-76-2 | eglycol monobutyl ether; butyl 2) | Chemical pesticides (As the total sum of the active substances) 0,5 MG/KG |

SECTION 13: Disposal considerations

| 13.1. Waste treatment methods | |
|-------------------------------|--|
| Residual waste | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| Contaminated packaging | Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. |
| EU waste code | The Waste code should be assigned in discussion between the user, the producer and the waste disposal company. |
| Disposal methods/information | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Special precautions | Dispose in accordance with all applicable regulations. |

MG/KG

SECTION 14: Transport information

ADR

| ADR | |
|-------------------------------|-----------------------------------|
| 14.1. UN number | Not regulated as dangerous goods. |
| 14.2. UN proper shipping | Not regulated as dangerous goods. |
| name | |
| 14.3. Transport hazard class | es) |
| Class | Not assigned. |
| Subsidiary risk | - |
| Hazard No. (ADR) | Not assigned. |
| Tunnel restriction code | Not assigned. |
| 14.4. Packing group | - |
| 14.5. Environmental hazards | No. |
| 14.6. Special precautions | Not assigned. |
| for user | |
| RID | |
| 14.1. UN number | Not regulated as dangerous goods. |
| 14.2. UN proper shipping | Not regulated as dangerous goods. |
| name | |
| 14.3. Transport hazard class(| es) |
| Class | Not assigned. |
| Subsidiary risk | - |
| 14.4. Packing group | - |
| 14.5. Environmental hazards | No. |
| 14.6. Special precautions | Not assigned. |
| for user | |
| ADN | |
| 14.1. UN number | Not regulated as dangerous goods. |
| 14.2. UN proper shipping | Not regulated as dangerous goods. |
| name | |
| 14.3. Transport hazard class(| es) |
| Class | Not assigned. |
| Subsidiary risk | - |
| 14.4. Packing group | - |
| 14.5. Environmental hazards | No. |
| 14.6. Special precautions | Not assigned. |
| for user | |
| ΙΑΤΑ | |
| 14.1. UN number | Not regulated as dangerous goods. |
| 14.2. UN proper shipping | Not regulated as dangerous goods. |
| name | |
| 14.3. Transport hazard class | es) |
| Class | Not assigned. |
| Subsidiary risk | - |
| 14.4. Packing group | - |
| 14.5. Environmental hazards | |
| 14.6. Special precautions | Not assigned. |
| for user | |
| | |

IMDG

| 14.1. UN number | Not regulated as dangerous goods. |
|---|-----------------------------------|
| 14.2. UN proper shipping | Not regulated as dangerous goods. |
| name | |
| 14.3. Transport hazard class | (es) |
| Class | Not assigned. |
| Subsidiary risk | - |
| 14.4. Packing group | - |
| 14.5. Environmental hazards | |
| Marine pollutant | No. |
| EmS | Not assigned. |
| 14.6. Special precautions | Not assigned. |
| for user | |
| 14.7. Maritime transport in bulk according to IMO instruments | Not applicable. |

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended Not listed.

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended Aluminum Flake (CAS 7429-90-5)

Calcium Carbonate (CAS 1317-65-3)

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA Not listed.

Austria: VVF0-E076-J00C-8TWU Belgium: VVF0-E076-J00C-8TWU Bulgaria: VVF0-E076-J00C-8TWU Croatia: VVF0-E076-J00C-8TWU Cyprus: VVF0-E076-J00C-8TWU Czech Republic: VVF0-E076-J00C-8TWU Denmark: VVF0-E076-J00C-8TWU Estonia: VVF0-E076-J00C-8TWU EU: VVF0-E076-J00C-8TWU Finland: VVF0-E076-J00C-8TWU France: VVF0-E076-J00C-8TWU Germany: VVF0-E076-J00C-8TWU Greece: VVF0-E076-J00C-8TWU Hungary: VVF0-E076-J00C-8TWU Iceland: VVF0-E076-J00C-8TWU Ireland: VVF0-E076-J00C-8TWU Italy: VVF0-E076-J00C-8TWU Latvia: VVF0-E076-J00C-8TWU Lithuania: VVF0-E076-J00C-8TWU Luxembourg: VVF0-E076-J00C-8TWU Malta: VVF0-E076-J00C-8TWU Netherlands: VVF0-E076-J00C-8TWU Norway: VVF0-E076-J00C-8TWU Poland: VVF0-E076-J00C-8TWU Portugal: VVF0-E076-J00C-8TWU Romania: VVF0-E076-J00C-8TWU Slovakia: VVF0-E076-J00C-8TWU Slovenia: VVF0-E076-J00C-8TWU Spain: VVF0-E076-J00C-8TWU Sweden: VVF0-E076-J00C-8TWU

Authorizations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended Not listed.

Restrictions on use

| | /2006, REACH Annex XVII Subst n given for the associated entry ו | ances subject to restriction on marketing and use, as amended number should be considered |
|---|---|--|
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) Aluminum Flake (CAS 7429-90-5) Directive 2004/37/EC: on the protection of workers from th | | 75 40 he risks related to exposure to carcinogens and mutagens at |
| work, as amended | | |
| Not listed. | | |
| Other regulations | | abelled in accordance with Regulation (EC) 1272/2008 (CLP s Safety Data Sheet complies with the requirements of Regulation ded. |
| National regulations | Directive 94/33/EC on the pro | old are not allowed to work with this product according to EU tection of young people at work, as amended. Follow national ical agents in accordance with Directive 98/24/EC, as amended. |
| Contains a substance wh toxic substances | nich is included on the TRGS 905 | i list of carcinogenic, germ cell mutagenic and reproductive |
| Aluminum Flake (CAS 7429-90-5) | | Anorganische Faserstäube, soweit nicht erwähnt (ausgenommen Gipsfasernund Wollastonitfasern) |
| Calcium Carbonate (CAS 1317-65-3) | | Anorganische Faserstäube, soweit nicht erwähnt (ausgenommen Gipsfasernund Wollastonitfasern) |
| France regulations | | |
| France INRS Table of Oc | cupational Diseases | |
| 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (CAS 111-76-2) | | Affections engendrées par les solvants organiques liquides à usage professionnel : hydrocarbures liquides aliphatiques ou cycliques saturés ou insaturés et leurs mélanges; hydrocarbures halogénés liquides; dérivés nitrés des hydrocarbures aliphatiques; al 84 |
| Epoxy Resin: reaction product of bisphenol A and epichlorohydrin (refer to epichlorohydrin) (CAS 25068-38-6) | | Maladies professionnelles provoquées par les résines époxydiques et leurs constituants 51 |
| Product registration number | | |
| Austria | UFI: VVF0-E076-J00C-8TWU | |
| Belgium | UFI: VVF0-E076-J00C-8TWU | |
| Czech Republic | UFI: VVF0-E076-J00C-8TWU | |
| Material name: DEVCON® Alumir | num Liquid (F-2) Resin | SDS EU |
| | | |

| Denmark | UFI: VVF0-E076-J00C-8TWU |
|-----------------------------------|---|
| European Union | UFI: VVF0-E076-J00C-8TWU |
| Finland | UFI: VVF0-E076-J00C-8TWU |
| France | UFI: VVF0-E076-J00C-8TWU |
| Germany | UFI: VVF0-E076-J00C-8TWU |
| Greece | UFI: VVF0-E076-J00C-8TWU |
| Hungary | UFI: VVF0-E076-J00C-8TWU |
| Italy | UFI: VVF0-E076-J00C-8TWU |
| Netherlands | UFI: VVF0-E076-J00C-8TWU |
| Norway | UFI: VVF0-E076-J00C-8TWU |
| Poland | UFI: VVF0-E076-J00C-8TWU |
| Portugal | UFI: VVF0-E076-J00C-8TWU |
| Slovakia | UFI: VVF0-E076-J00C-8TWU |
| Slovenia | UFI: VVF0-E076-J00C-8TWU |
| Spain | UFI: VVF0-E076-J00C-8TWU |
| Sweden | UFI: VVF0-E076-J00C-8TWU |
| Switzerland | UFI: VVF0-E076-J00C-8TWU |
| 15.2. Chemical safety | No Chemical Safety Assessment has been carried out. |
| assessment | No onemical dately Assessment has been carried out. |
| | |
| SECTION 16: Other inform | nation |
| List of abbreviations | |
| | ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland |
| | Waterways. |
| | ADR: Agreement concerning the International Carriage of Dangerous Goods by Road. |
| | AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany). |
| | CAS: Chemical Abstract Service. |
| | CEN: European Committee for Standardization. |
| | IATA: International Air Transport Association. |
| | IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous |
| | Chemicals in Bulk. |
| | IMDG: International Maritime Dangerous Goods. MAC: Maximum Allowed Concentration. |
| | MAC: Maximum Allowed Concentration. MARPOL: International Convention for the Prevention of Pollution from Ships. |
| | PBT: Persistent, bioaccumulative and toxic. |
| | RID: Regulations concerning the International Carriage of Dangerous Goods by Rail. |
| | STEL: Short term exposure limit. |
| | TLV: Threshold Limit Value. |
| | TWA: Time Weighted Average. |
| | VLE: Exposure Limit Value. |
| | VME: Exposure Average Value. |
| | vPvB: Very persistent and very bioaccumulative. |
| References | Not available. |
| Information on evaluation | The classification for health and environmental hazards is derived by a combination of calculation |
| method leading to the | methods and test data, if available. |
| classification of mixture | |
| Full text of any statements, | |
| which are not written out in full | |
| under sections 2 to 15 | H228 Flammable solid. |
| | H250 Catches fire spontaneously if exposed to air. |
| | H261 In contact with water releases flammable gas. |
| | H302 Harmful if swallowed |

- H302 Harmful if swallowed.
 - H311 Toxic in contact with skin. H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H400 Very toxic to aquatic life.
 - H410 Very toxic to aquatic life with long lasting effects.

Revision information Training information

Follow training instructions when handling this material.

None.

ITW Performance Polymers cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.