

# **BOURNS**<sup>®</sup>

## Bourns REACH Efforts

January 23, 2024

As of June 2007, the European Regulation (EC) 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) entered into force. As a downstream user of chemical substances, Bourns is fully aware of the requirements of REACH. It is our objective to fully comply with REACH securing the dependable supply of our products to our customers.

The Candidate List of Substances of Very High Concern (SVHC) Annex XIV was published on the website of the European Chemicals Agency (ECHA) in October 2008 with additions to the Candidate List in January 2010, March 2010, June 2010, August 2010, December 2010, June 2011, August 2011, December 2011, June 2012, December 2012, June 2013, December 2013, June 2014, December 2014, June 2015, December 2015, June 2016, January 2017, July 2017, January 2018, June 2018, January 2019, July 16, 2019, January 16, 2020, June 25, 2020, January 19, 2021, July 8, 2021, August 19, 2021, January 17, 2022, June 10, 2022, January 17, 2023, June 14, 2023 and January 23, 2024. There are now 240 substances identified as SVHC. The REACH Authorization list (Annex XVII) was updated on Oct 4, 2023, and includes 78 entries. No dangerous substances as listed and described in the conditions of restriction in Annex XVII are present in Bourns articles. There is no intentional release of substances in the normal use of these articles. Bourns does not manufacture substances or preparations.

**The following chart lists those Bourns' models that contain a SVHC. If a model is not listed on the chart, it is not known to contain a SVHC.**

**CADMIUM:** This chart also identifies some legacy parts that contains cadmium.

**LEAD:** Several product lines include lead in high temperature solder and/or lead in alloys or lead oxide in some ceramics. Some **standard** (non-RoHS compliant) parts may use SnPb plating on pins or terminals. The following chart provides information on the products (articles) that are now subject to reporting the presence of lead >0.1% w/w.

The following chart provides information on the Bourns models (articles) that are subject to declaration due to the presence of specifically listed SVHCs >0.1% w/w.

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Bourns Models **Currently Containing** Substances of Very High Concern (SVHC)  
(If a model is not listed below, it does **not** contain a SVHC)

| Models  | SVHC reported | SVHC CAS  | Material in article >0.1%      | Comments  |
|---|---------------|-----------|--------------------------------|---|
| <b>AC Transient Protector</b><br><br>Model: ACTP250J1BJR-S,<br>ACTP250J1BJ  | Lead          | 7439-92-1 | High temperature solder        |   |
| <b>BBT Accessories: 4-Type Sneak Current</b><br><br>Part numbers: A0341959; A0341960;<br>A0341960-FR; A0342432; A0353716;<br>A0353717; A0361534; A0365896   | Lead          | 7439-92-1 | Copper alloy with SnPb plating | Not RoHS compliant  |
| <b>C-303 5-Pin Solid State Protection Modules</b><br><br>Part numbers: 303M-11Axxx, 303M-11Fxxx, 303M-12Axxx, 303M-12Fxxx (black, red, blue..)  | Lead          | 7439-92-1 | Copper alloy with SnPb plating | Not RoHS compliant  |
| <b>C-303 Accessories: Voltage Protection, Sneak Current Protection and Heat Coils</b><br><br>Part numbers: A0358105-ATT;<br>A0358113; A0358116; A0358313;<br>A0361531; A0361534; A0361540;<br>A0366047; A0396098  | Lead          | 7439-92-1 | Copper alloy with SnPb plating | Not RoHS compliant  |
| <b>303M accessories: grounding modules, test cords</b><br><br>Part numbers: A0294497; A0294510;<br>A0334926/ATT; A0337864/ATT;<br>A0350300  | Lead          | 7439-92-1 | SnPb solder                    | Not RoHS compliant  |
| <b>Central Office Protector; Protector Modules sealed with and without test points; 5 Pin Protector Modules</b><br><br>Part numbers 2410 series: 2410-310-G-xxxx, 2410-31-G-xxxx, 2410-33-G-xxxx, 2410-36-G-xxxx, 2410-37-G-xxxx, 2410-39-G-xxxx, 2410-41-G-xxxx, 2410-46-G-xxxx, 2410-71-G-xxxx, 2410-76-G-xxxx. | Lead          | 7439-92-1 | Copper alloy with SnPb plating | Not RoHS compliant  |
| <b>Ceramic Fuel card (Automotive)</b><br><br>Part number: 3714X-CHD-000   | Lead          | 7439-92-1 | Lead solder                    | Note: most fuel cards contain a lead-containing glass in the inks (not SVHC) and no other SVHC. |
| <b>Ceramic Multifuse</b>  | Lead          | 7439-92-1 | High temp solder               |   |

|   |                      |                 |                                     |   |
|---|----------------------|-----------------|-------------------------------------|---|
| CMF-SDPxxx  |                      |                 |                                     |   |
| <b>Models</b>   | <b>SVHC reported</b> | <b>SVHC CAS</b> | <b>Material in article &gt;0.1%</b> | <b>Comments</b>                             |
| <b>Chip Diodes –</b><br>Models: 1.5SMBJ, 1.5SMB;<br>1.5SMC, 15KPA-SD-Q, 5.0SMDJ,<br>CD003B0xR, CD1206, CD123D,<br>CD1408, CD1607, CD2010,<br>CD214A-B, CD214B-B, CD214C-<br>B320-360, CD214C-s3x, CD214X-<br>F, CD214x-FSxx, CD214x-R,<br>CD214x-T, CD216A, CD2320, CD-<br>DFxxS, CD-DFxxSL where x is<br>selected voltage. | Lead                 | 7439-92-1       | High temp solder                    |   |
| <b>Chip Diodes –</b><br>Models: CD-HD, CDKBP,<br>CD-MBLxxS, CD-MBLxxSL,<br>CD-MMBL110S, CDNBS04,<br>CDTO269-BR, CDWBS16,<br>P4SMA, P6SMB, R3803; SM8S,<br>SM8SF, SMA6J, SMA6J-Q,<br>SMF4L, SMAJ, SMAJ-Q, SMBJ,<br>SMBJ-Q, SMCJ, SMCJ-Q, SMLJ,<br>SMLJ-Q, where x is selected<br>voltage.                                    | Lead                 | 7439-92-1       | High temp solder                    |   |
| <b>DSL POTS Splitters<br/>(standard - Not RoHS<br/>compliant)</b><br><br>Models: 3610, 3611, 3610A2<br>VSDL2; 3611A2 VSDL2; 3610V3  | Lead                 | 7439-92-1       | Copper alloy with<br>SnPb plating   |   |
| <b>300V SSOVP C/O Protection<br/>Unit</b><br><br>Part number: CLS50300  | Lead                 | 7439-92-1       | Copper alloy with<br>SnPb plating   | Not RoHS compliant                          |
| <b>Encoders</b><br><br>Models: EM14, EMS22A,<br>EMS22D, EMS22P, EMS22Q, EN,<br>ES14, PEC11D, PEC11H,<br>PES11R  | Lead                 | 7439-92-1       | Lead in copper<br>alloy             |   |
| <b>Encoders (Standard, Not<br/>RoHS compliant)</b><br><br>Models: EPS, ES (no L suffix)   | Lead                 | 7439-92-1       | SnPb coating on<br>pins/terminals   | For <b>standard</b> , non-compliant version |

|   |               |           |   |   |
|---|---------------|-----------|---|---|
| <b>Gas Discharge Tube (Standard model - Not RoHS compliant - Non-LF)</b><br><br>Models: 2020-xxT-XX, 2026-xx-XX, 2026-xx-CxxM1xx/MSP, 2027-xx-SM, 2027-xx-XX, 2030-xxT-SM, 2031-xxT-SM, 2035-xx-SM, 3025-xx-XX, 2036-xxSM, 2036-xx-XX, 2037-xx-XX, 2038-xx-SM, 2038-xx-XX, 2039-xx-SM, 2047-xx-A (no LF suffix) | Lead          | 7439-92-1 | Sn90Pb10 plating  | For <b>standard</b> , non-compliant version (no LF suffix in part number) |
| <b>Models</b>   | SVHC reported | SVHC CAS  | Material in article >0.1%   | Comments  |
| <b>Hybrid Position Sensor</b><br><br>HES38U-RS485   | Lead          | 7439-92-1 | Lead in copper alloys and lead in high temp solder  |   |
| <b>LED Shunt Protector</b><br><br>Part numbers: LSPxxxxAJR; LSPxxxxBJR where xxxx is the selected off-state voltage   | Lead          | 7439-92-1 | High temp solder  |   |
| <b>Military trimmers:</b><br>Cermet      Wirewound<br>RJ12      RT12<br>RJ22      RT22<br>RJ24      RT24<br>RJR24      RTR22<br>RJ26      RTR24<br>RJR26      RT26<br>RJ50<br>RJR50   | Lead          | 7439-92-1 | <b>Cermet models</b> use Sn90Pb10 coating on pins;<br><br><b>Wire wounds</b> are 60/40 hot dipped | Alternative commercial parts are available without lead plating/solder.   |
| <b>Panel Controls (Cermet)</b><br><br>Models: 51, 53, 81, 82, 85, 86, 91, 92, 93, 94, 95, 97, 99, 3852, 3856, 3862 (Cermet option)  | Lead          | 7439-92-1 | Lead in alloys  |   |
| <b>Panel Controls (Conductive Plastic)</b><br><br>Models: 39, 3900, 51, 53, 56, 81, 82, 85, 86, 91, 92, 93, 94, 95, 97, 99, 3851 (CP option)  | Lead          | 7439-92-1 | Lead in alloys, copper and aluminum   |   |
| <b>Panel Controls</b><br><br>PDB183, PDB241-GTR, PCB241-SOTL, PSM, PSP, PTH, PTJ  | Lead          | 7439-92-1 | Lead in copper alloy  |   |
| <b>Panel Controls (Wirewound)</b><br><br>Models: 83   | Lead          | 7439-92-1 | Lead in alloys, copper and aluminum   |   |

|   |               |           |                                |                    |
|---|---------------|-----------|--------------------------------|--------------------|
| <b>Panel Controls (Wirewound)</b><br><br>Models: 84   | Lead          | 7439-92-1 | Lead in copper alloy           |                    |
| <b>2470 series 5-Pin -TBU Yellow, Black, Blue, Violet or Orange; includes plated, sealed and/or test points</b><br><br>Part numbers: 2470 series: 2470-46-G0-410-G-xxxx, 2470-41-G-xxxx, 2470-43-G-xxxx, 2470-46-G-xxxx, 2470-47-G-xxxx, 2470-49-G-xxxx. Includes parts plated, sealed and/or with test points. | Lead          | 7439-92-1 | Copper alloy with SnPb plating | Not RoHS compliant |
| <b>Models</b>   | SVHC reported | SVHC CAS  | Material in article >0.1%      | Comments           |
| <b>5 Pin PTC 2440 and 2442 series</b><br><br>Part numbers: 2440 series: 2440-41-G-xxxx; 2440-43-G-xxxx; 2440-49-G-xxxx. 2442 series: 2442-41-G-xxxx.  | Lead          | 7439-92-1 | Copper alloy with SnPb plating | Not RoHS compliant |
| <b>5 Pin PTC 2430 series</b><br><br>Part numbers: 2430 series: 2430-41-G-xxxx; 2430-43-G-xxxx   | Lead          | 7439-92-1 | Copper alloy with SnPb plating | Not RoHS compliant |
| <b>5 Pin PTC 2440 and 2442 series</b><br><br>Part numbers: 2440 series: 2440-41-G-xxxx; 2440-43-G-xxxx; 2440-49-G-xxxx. 2442 series: 2442-41-G-xxxx.  | Lead          | 7439-92-1 | Copper alloy with SnPb plating | Not RoHS compliant |
| <b>Precision Potentiometers (Wirewound):</b><br><br>Models: 3500S, 3501H, 3547S, 3548H, 3548S, 3549H, 3549S, 3590P, 3590S, 3700S, 3701H, 3750S  | Lead          | 7439-92-1 | Lead in alloys                 |                    |
| <b>Precision Potentiometers (Conductive Plastic)</b><br><br>Models: 3751H, 6537S, 6538S, 6539S, 6574S, 6630S, 6637S, 6638S, 6639S, 6657S  | Lead          | 7439-92-1 | Lead in alloys                 |                    |
| <b>Precision Potentiometers (Wirewound)</b><br><br>Models: 3540S, 3541H, 3543S, 3545S   | Lead          | 7439-92-1 | Lead in alloys                 |                    |

|  |               |           |  |  |
|--|---------------|-----------|--|--|
| <b>Protector Modules sealed with and without test points; 5 Pin Protector Modules</b><br><br>Part numbers 2420 series: 2420-310-G-xxxx, 2420-31-G-xxxx, 2420-33-G-xxxx, 2420-36-G-xxxx, 2420-37-G-xxxx, 2420-39G--xxxx | Lead          | 7439-92-1 | Copper alloy with SnPb plating         |  |
| <b>Power TVS Products</b><br><br>Models: PTVS1-xxxx-xx; PTVS2-xxxx-xx; PTVS3-xxxx-xx; PTVS6-xxxx-xx; PTVS10-xxxx-xx; PTVS15-xxxx-xx; PTVS20-xxxx-xx  | Lead          | 7439-92-1 | High temp solder                       |  |
| Models   | SVHC reported | SVHC CAS  | Material in article >0.1%              | Comments                                     |
| <b>QMP - 4-Pin Protector modules - Solid State or Gas Tube options:</b><br><br>Part numbers: A0294497; A0294510; A0334926/ATT; A0337864/ATT; A0350300  | Lead          | 7439-92-1 | Copper alloy with SnPb plating         |  |
| <b>Resistor Networks:</b><br>41xxR, 43xxH/M/R, 44xxP, 48xxP with LF suffix   | Lead          | 7439-92-1 | High temp solder                       | LF versions                                  |
| <b>Resistor Networks – Standard:</b><br>41xxR, 43xxH/M/R, 48xxP No LF suffix   | Lead          | 7439-92-1 | Sn60Pb40 plating on pins and Pb solder | For <b>standard</b> , non-compliant versions |
| <b>Resistor Networks:</b><br><br>41xxT, 43xxT, 43xxS, 43xxK, 44xxT, 48xxT with LF suffix   | Lead          | 7439-92-1 | High temp solder                       | LF versions                                  |
| <b>Resistor Networks – Standard:</b><br>41xxT, 43xxT, 43xxS, 43xxK, 48xxT  | Lead          | 7439-92-1 | Sn60Pb40 plating on pins               | For <b>standard</b> , non-compliant versions |
| <b>Non-Contacting Analog Rotary Position Sensors and Non-Contacting Multiturn Magnetic Sensors</b><br><br>AMS22B; AMM20B; 4-DMS22B   | Lead          | 7439-92-1 | Lead in alloys                         |  |
| <b>SEMS - Integrated Circuit MM Hybrid (Not RoHS Compliant)</b>  | Lead          | 7439-92-1 | Pb solder 62Sn36Pb2Ag                  | Non-compliant version                        |

|   |               |           |  |   |
|---|---------------|-----------|--|---|
| N6623   |               |           |  |   |
| <b>Sensors &amp; Controls:<br/>3610S series – 10-Turn<br/>Precision Knobpot</b>   | Cadmium       | 7440-43-9 | Alloy used for tab contains 18% Cd. w/w >0.1%        | Part is not RoHS compliant. No material change planned. |
| <b>SinglFuse SMD Fuse</b><br><br>Model series: SF-2410F-T;<br>SF-2410FR-T; SF-2410HI-T;<br>SF-3812F-T; SF-3812FG-T;<br>SF-3812SP-T; SF-3812TM-T   | Lead          | 7440-43-9 | Lead in high temp solder                             |   |
| <b>Models</b>   | SVHC reported | SVHC CAS  | Material in article >0.1%                            | Comments  |
| <b>Solenoid</b><br>TMA70295CF,<br>TMA70266CF  | Lead          | 7439-92-1 | Lead in steel alloy, High temp solder                |   |
| <b>Solenoid plunger</b><br>TMA70295 12L14   | Lead          | 7439-92-1 | Lead in steel alloy                                  |   |
| <b>SPD Test Kits:</b><br>4030-01; 4030-02; 4040-01;<br>4040-01-W-C1   | Lead          | 7439-92-1 | SnPb plating on copper wire                          |   |
| <b>Thyristor Surge Protectors: SMA, SMB series</b><br>Models: TISP4xxxHxBJR-S,<br>TISP4CxxxH3BJR-S,<br>TISP4xxxM3BJR-S,<br>TISP4xxxM3AJR-S,<br>TISP4xxxLxBJR-S,<br>TISP4xxxLxAJR-S,<br>TISP4xxxH3BJR-S,<br>TISP4xxxT3BJR-S,<br>TISP4xxxJxBJR-S, TISPxxxH3BJR-S<br>where xxxx represents available voltage options | Lead          | 7439-92-1 | High temp solder                                     |   |
| <b>Trimming Potentiometer (Trimpot Wirewounds) Standard - not RoHS Compliant</b><br><br>Model: 3360   | Lead          | 7439-92-1 | Lead in copper alloy; Copper alloy with SnPb plating | Not RoHS compliant                                      |
| <b>Trimming Potentiometer (Trimpot Cermet) RoHS compliant</b><br><br>Models with LF suffix: 3006, 3009,3059, 3082, 3252, 3262, 3266, 3269, 3292, 3296, 3299<br><br>Models without LF suffix: 3214, 3223, 3224, PV36, PV37, PVG5   | Lead          | 7439-92-1 | Lead in copper alloy                                 |   |

|   |                 |                        |  |   |
|---|-----------------|------------------------|--|---|
|   |                 |                        |  |   |
| <b>Trimming Potentiometer (Trimpot Wirewounds) RoHS compliant</b><br><br>Model series: 3057, 3057L, 3250, 3260, 3290  | Lead            | 7439-92-1              | Lead in copper alloy                                 |   |
| <b>Trimming Potentiometer (Trimpot Wirewounds) RoHS compliant</b><br><br>Model series 3005  | Lead<br>Cadmium | 7439-92-1<br>7440-43-9 | Lead in copper alloy; Cadmium in electrical contact. | Cadmium exemption (8b) is dependent on the user's RoHS category – valid for Categories 8, 9 and 11. |
| <b>Trimpot Potentiometers Cermet (Standard - not RoHS compliant)</b><br><br>Models: 3006, 3009, 3059, 3082, 3252, 3262, 3266, 3269, 3292, 3296, 3299, 3329, 3339, 3352, 3361, 3362, 3386  | Lead            | 7439-92-1              | Lead in copper alloy; Copper alloy with SnPb plating | For <b>standard</b> , non-compliant versions.   |
| Models  | SVHC reported   | SVHC CAS               | Material in article >0.1%                            | Comments  |
| <b>Varistors High Energy:</b><br>ZOV150K40D3MEOBO<br>ZOV150K40MEOBOV20<br>ZOV275K25MPPEV10<br>ZOV275K40D2MEOBO<br>ZOV275K40MEOBOV20<br>ZOV275K40MEX1LEF<br>ZOV320K40MEOBOV20<br>ZOV320K80MEOBOV25<br>ZOV385K40MEOBOV20<br>ZOV385K80MEOBOV25<br>ZOV440K40MEOBOV20<br>ZOV75K40MEOBOV20<br>ZOVA275K40D2MEOBO | Lead            | 7439-92-1              | High temp solder                                     |   |
| <b>Fixed Resistors:</b><br>RSH, RSI, RSJ, RSW, SWA  | Lead            | 7439-92-1              | Lead in copper alloy                                 |   |