

**BMW 5 Series Sedan (DATE 10/2022)**

The BMW Group is committed to sustainable principles and is therefore taking proactive measures to avoid certain chemicals in the production of our vehicles. Due to that only substances that are technically required in the product are still contained. The substances are incorporated in such a way that potential exposure to the customer is minimized, and danger for humans or the environment can be excluded as long as the vehicle and its parts are used as intended, and any repairs, servicing and maintenance are carried out following technical instructions for those activities, and industry standard good practices. Safe use of the product is described in the owner manual that is consistent with our own commitment to promote the responsible manufacturing, handling and use of our products. Our information on repair and servicing of vehicles and genuine parts also includes safe use information for service personnel. An end-of-life vehicle may only be disposed of legally in the European Union at an Authorised Treatment Facility (ATF). Vehicle parts should be disposed in accordance with locally applicable laws and local authority guidance.

**Communication of information according to Article 33 REACH**

This product is composed of articles defined under Article 3(3) of the Regulation No. 1907/2006 of the European Parliament and the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Any supplier shall comply with the duty to communicate information on substances in articles in accordance to Article 33. This product, including any article that the product is composed of, does contain substances meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0.1% weight by weight (w/w). We inform that lead (CAS-No: 7439-92-1) is used in almost all product categories, primary as alloying element. Recycled aluminum and metals may contain lead as impurity.

Name of substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0.1% weight by weight (Typical use according to the REACH Annex XV Dossier)	Location of article containing the substance in the product (Detailed, including optional equipment)
1,2-Dimethoxyethane, ethylene glycol dimethyl ether, EGDME (typically as process solvent and for surface treatment)	Drive Assistance (Radio-controlled locking system) Entertainment and Navigation (Anti-theft device)
1,3-Propanesultone (typically as electrolyte in batteries)	Drive Assistance (Radio-controlled locking system) Wheels and tires (Car wheels)
6,6'-Di-tert-butyl-2,2'-methylene-di-p-cresol (typically for production of polymers and rubbers)	Chassis (Front axle suspension, Steering column) Entertainment and Navigation (Loudspeaker and cover)
2-Methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one (typically used in coatings, paints and fillers)	Chassis (Steering column) Drive Assistance (Radio-controlled locking system, Rear view camera) Electronic (Brake lights, Cable harness, Control units, moduls, Front lamp cluster, High voltage charging electronics, Switch, sensor) Powertrain (Thermostat and engine mounted cooling lines) Powertrain/Chassis (Board equipment)
2-Methylimidazole (typically as hardener in epoxy resins and for production of adhesives)	Electronic (High voltage charging electronics) Powertrain (Engine cooler with mounting, Exhaust pipe with catalyst or complete system, DPF)
4,4'-Isopropylidenediphenol (typically for production of polymers and resins)	Electronic (High voltage charging electronics, Switch, sensor) Entertainment and Navigation (Radio, amplifier, CD-player) Heating and air conditioning (Air conditioner)
Diazene-1,2-dicarboxamide, ADCA (typically as blowing agent in plastic and rubber manufacturing)	Body (Bodyshell, Bonnet latch, locks and fittings, Colours, paints and basic material) Drive Assistance (Time-to-line crossing external camera) Electronic (Control units, moduls, Plug-connection cable, clamp)
Lead monoxide, lead oxide (typically as constituent of electronic components)	Body (Air guides, Window mechanism with electrical control in front door, Window mechanism with electrical control in rear door) Chassis (Active rear axle kinematic, Anti-block system, Brake boosters, Lateral moment distribution rear axle, Steering column, Steering gear) Communication (Off-hands mobile communication) Drive Assistance (Adaptive cruise control, Distance warning systems, Heading control, Rear view camera, Time-to-line crossing external camera) Electronic (Battery with holder, Brake lights, Control units, moduls, Front lamp cluster, Head-up Display, High voltage charging electronics, High-voltage accumulator system, High-voltage battery individual components, Horn, Instrument cluster, Rear light cluster, Switch, sensor, Windshield wipers) Entertainment and Navigation (Central display and control unit, Radio, amplifier, CD-player) Heating and air conditioning (Air conditioner, Heater with control, seat heating) Interior (Front seats, Mirrors, sun visors, ashtrays, trays) Powertrain (Alternator with drive and mountings, Automatic transmission, Carbon canister ventilation, Charge air cooler with mounting, Control Hybrides/E-drive, Coolant pump with drive, Electronic switching or control devices, Fuel tank with filler pipe, Housing ventilation, Injection control unit, Selective catalytic reduction technology, Sensor for injection control unit, Supercharging contrivance with regulation, Thermostat and engine mounted cooling lines, Variable valve train, Ventilation, evaporation emission control)
Silicic acid, lead salt (typically for production of glass and ceramics)	Electronic (Head-up Display) Entertainment and Navigation (Radio, amplifier, CD-player)
Diboron trioxide (typically for production of borosilicate and crystal glass)	Body (Air guides) Chassis (Anti-block system, Steering column) Communication (Off-hands mobile communication) Drive Assistance (Adaptive cruise control, Distance warning systems, Night Vision, Radio-controlled locking system, Time-to-line crossing external camera) Electronic (Battery with holder, Control units, moduls, Front lamp cluster, High voltage charging electronics, High-voltage accumulator system, High-voltage battery individual components, Instrument cluster, Switch, sensor) Entertainment and Navigation (Radio, amplifier, CD-player, Video and tv-sets) Heating and air conditioning (Air conditioner, Heater with control, seat heating) Interior (Front seats, Mirrors, sun visors, ashtrays, trays) Powertrain (Control Hybrides/E-drive, Coolant pump with drive, Fuel tank with filler pipe, Housing ventilation, Injection control unit, Supercharging contrivance with regulation, Variable valve train)
Boric acid (typically for production of glass and ceramics and as flame retardant)	Body (Boot lid latch, locks and fittings) Electronic (Head-up Display) Entertainment and Navigation (Video and tv-sets) Interior (Front seats) Powertrain (Starter with mount)
Decamethylcyclotrisiloxane (typically as feedstock for the production of silicone polymers)	Chassis (Brake boosters) Drive Assistance (Radio-controlled locking system) Powertrain (Oil cooler lines, Oil filter and lines) Powertrain/Chassis (Board equipment) Wheels and tires (Car wheels)
Dicyclohexyl phthalate (typically as plasticizer for production of polymers)	Chassis (Steering column)
Dodecamethylcyclohexasiloxane (typically as feedstock for the production of silicone polymers)	Chassis (Brake boosters) Powertrain (Coolant pump with drive, Exhaust gas recirculation) Powertrain/Chassis (Board equipment) Wheels and tires (Car wheels)
Imidazolidine-2-thione (typically for production of polymers and rubbers)	Body (Boot lid latch, locks and fittings) Chassis (Front wheel brakes, Self-levelling elements for hydropneumatic system, Steering gear) Heating and air conditioning (Auxiliary heater with control elements) Interior (Front seats) Powertrain (ECU box/mounting, Starter with mount)
Nonylphenol (typically as dispersing agent in coatings, adhesives and paints)	Powertrain (Automatic transmission, Coolants lines) Chassis (Accelerator foot control, Anti-block system, Brake boosters)
Octamethylcyclotetrasiloxane (typically as feedstock for the production of silicone polymers)	Drive Assistance (Radio-controlled locking system) Electronic (Switch, sensor) Powertrain (Control Hybrides/E-drive, Selective catalytic reduction technology) Powertrain/Chassis (Board equipment)
1,6,7,8,9,14,15,16,17,17,18-Dodecachloropentacyclo[12.2.1.16.9.02.13.05.10]octadeca-7,14-diene, "Dechlorane Plus" (typically as flame retardant)	Electronic (High voltage charging electronics, Switch, sensor) Heating and air conditioning (Heater with control, seat heating)
Aluminosilicate Refractory Ceramic Fibres (typically for heat insulation)	Heating and air conditioning (Auxiliary heater with control elements)
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol, UV-328 (typically for production of UV-absorbing polymers and coatings)	Electronic (Front lamp cluster, Head-up Display, Rear light cluster) Interior (Trim panel trunk lid/tailgate)
Alkanes, C14-17, chloro (typically as flame retardant and as additive in plastics, sealants, rubber, textiles)	Chassis (Self-levelling elements for hydropneumatic system)
Medium-chain chlorinated paraffins (typically as flame retardant and as additive in plastics, sealants, rubber, textiles)	Powertrain (Coolants lines, Fuel lines)
Lead titanium trioxide (typically as constituent of electronic components)	Powertrain (Fuel tank with filler pipe)
Cobalt(II) nitrate hexahydrate (typically as additive in magnets for electronic assemblies)	Body (Safety belts)
4-(1,1,3,3-Tetramethylbutyl)phenol, ethoxylated (typically as dispersing agent in coatings, adhesives and paints)	Powertrain (Exhaust controls)
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone (typically for adhesives, sealants, coatings and inks)	Electronic (Instrument cluster, Switch, sensor) Entertainment and Navigation (Radio, amplifier, CD-player) Powertrain (Thermostat and engine mounted cooling lines)
2-Ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate, DOTE (typically for production of paints and polymers)	Body (Airbags, Colours, paints and basic material) Electronic (Control units, moduls)
Bis(2-(2-methoxyethoxy)ethyl)ether, tetraglyme (typically as process solvent)	Drive Assistance (Radio-controlled locking system) Electronic (Horn)
Hexahydro-4-methylphthalic anhydride (typically for production of resins and polymers)	Electronic (Instrument cluster)
2,3-dibromo-1-propanol, 2,3-DBPA (typically as an intermediate in the manufacture of fine chemicals)	Entertainment and Navigation (Radio, amplifier, CD-player) Heating and air conditioning (Heater with control, seat heating)
Diocetyl dilaurate (typically for production of polymers, coating products, adhesives and sealants)	Powertrain (Automatic transmission)
S-(Tricyclo(5.2.1.0 <sup>2,6</sup> )deca-3-en-8(or 9)-yl O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate (typically used in lubricants)	Powertrain (Vacuum pump)

The information provided in this document related to material and substance content represents our knowledge and belief, which may be based in whole or in part on available information provided by suppliers to us. Additional Information: Certain inorganic oxides are bound in glass or ceramic matrices that change their individual substance properties as well as their communication duties under REACH. Similar changes occur with certain precursors that are bound in polymers.