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| | **CVS55** | |
| Release date<br>2025-05 | | Info class<br>Public |

# Prohibited and Restricted Substances in Products

## Foreword

This Commercial Vehicle Standard (CVS) contains fully harmonised requirement specifications of the brands (legal entities) MAN Truck & Bus SE (hereafter MAN) and Scania CV AB (hereafter Scania), which are congruent to fulfil technical requirements of both brands. Any review of this standard shall only be done in agreement with both brands.

In this CVS, all non-company standards are referred as international standards (e.g.: ISO, EN). These international standards are available as national edition at the respective national standardisation organisation (e.g.: DIN ISO, SS-ISO, DIN EN, SS-EN).

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Make sure that you have the latest version of this standard. Latest version is the electronic issue distributed by the respective standardisation organisations and if applicable the respective supplier portal.

| **Technical responsibility:** | **Standardisation organisation:** | Continuation page 1 to 9 |
|---|---|---|
| Product Compliance & Homologation, TGRMH<br>Material Compliance, TGRMHPM | TRATON Standardization, TGRMHPS | **Replacement for**:<br>CVS55:2024-02 |
| | | **Distribution**:<br>This Commercial Vehicle Standard is distributed at all involved brands of TRATON Group internally and also externally to relevant suppliers via supplier portals of the involved brands. |

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## Changes from the previous issue

Restricted substances section has been revised to include PFAS substances, and POPs substances listed in Annex A and B in Stockholm Convention but haven't been classified as prohibited GADSL yet.

Brand specific information moved to new chapter 6 *Brand-specific requirements*. Updated internal references.

Editorial changes.

Changes are shaded.

## Introduction

The TRATON brands shall work proactively to minimise the use of hazardous substances that affect human health and the environment. The specific substances concerned are specified in GADSL list and/or different legal directives.

## 1 Scope

This standard deals with substances, which are regulated or are projected to be regulated by a governmental agency or authority, that remain in the products or parts at the point of sale and which must not be present (Prohibited), or should not be present (Restricted). This applies on global markets as importer, manufacturer or distributor.

*Example on products:* Trucks, busses, bus chassis, power solutions, vehicle components delivered to other OEMs, spare parts, vehicle related service parts, special tools for workshops, mixtures used in products (e.g. engine oil).

This standard shall be regarded as a complement to requirements set by legislation and agreements. Those legal requirements shall be stated in the the corresponding technical product documentation by the design owning departments.

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## 2 Terms, definitions and abbreviations

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|---|---|
| Article | According to the EU REACH regulation (EC 1907/2006), an article is an object which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition. |
| Chemical products | A chemical product is a chemical substance or mixture, such as hydrochloric acid, glue, paint and coolant. Note that a chemical substance/mixture may also be included in a part such as explosives in an airbag. |
| ELV Directive | End-of-Life Vehicle (ELV) Directive (2000/53/EC), see link. The directive aims at the prevention of waste from vehicles and at re-use, recycling and recovery of vehicles and parts. Article 4 in the directive limits the use of some hazardous substances (mercury, lead, hexavalent chromium and cadmium) in materials in vehicles with a total weight < 3,5 tonnes. Exemptions from the limitations are listed in the Annex II of the directive. The Annex II is amended on a regular basis. |
| F-Gas Regulation | Regulation (EU) 2024/573, see link. It is the legal base to implement the requirements from Montreal protocol. |
| GADSL | Global Automotive Declarable Substance List, see link. GASDL is a global list of substances which are of concern to human health, the environment, recycling or waste-disposal. The GADSL is prepared in cooperation among automobile manufacturers, tier suppliers and material suppliers. The GADSL only covers substances that are expected to be present in a material or part that remains in the vehicle or part at the point of sale.-In GADSL substances have assigned reporting thresholds and are categorised as declarable and/or prohibited with reference to legal requirements. |
| POPs Regulation | Regulation (EU) 2019/1021, see link. It implements the commitments of the Union under the Stockholm Convention on Persistent Organic Pollutants (POPs) and under the Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution. |
| Product | All parts/articles or mixtures themselves, which are put on the market by the brands of MAN and Scania. |
| REACH | EU REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) regulation (1907/2006/EC), see link. For further information, check ACEA's REACH: Automotive Industry Guideline, see link. |
| REACH Candidate List | Candidate List of Substances of Very High Concern for Authorisation (SVHC), see link. The list is issued by the European Chemicals Agency (ECHA) and includes substances that may have very serious and often irreversible effects on humans and the environment. Substances on Candidate List may subsequently be nominated to be included in REACH Authorisation (Annex XIV) or Restriction (Annex XVII) List, by decision of the European Commission.<br><br>The use of substances on the REACH Candidate List above 0,1% weight by weight of the contained article requires information on the used substance and safe use instructions (if available) to professional users (REACH Article 33(1)) at point of product sale. It also requires the reporting of the product to the EU SCIP (Substances of Concern in articles and complex products) database before placing it on the EU market (as required by Article 9 of EU Waste Framework Directive). |
| REACH Authorisation List | Substances in REACH Annex XIV, see link. Substances on the Authorisation List cannot be placed on the EU market or used after the so-called "sunset date" without a granted authorisation by the European Commission. |

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| RoHS | Restriction of the use of certain Hazardous Substances in electrical and electronic equipment (EEE) (Directive 2011/65/EU), see link. EEE installed in vehicles, ships and other means of transport are out of scope. RoHS restricts the use of lead, cadmium, mercury, hexavalent chromium, brominated flame retardants PBDE, PBB and the phthalates DEHP, DBP, BBP, DIBP. A supplier issued Declaration of Conformity with RoHS as well as parts marking (CE and crossed-out wheeled bin) is required. |
| Stockholm Convention | Stockholm Convention on Persistent Organic Pollutants (POPs) is an international environmental treaty, see link. It aims to eliminate or restrict the production and use of persistent organic pollutants. The restricted POPs are listed in its Annexes, see link. |

## 3 Application and delimitations

The restriction in this CVS applies only to substances remaining in the final product.

This standard does not cover substances in materials and parts used only in product development, production processes, the sales and service network or in processes concerning facilities and maintenance.

*Example*: The standard applies to the substances in the cured paint of the part but not to the solvents which evaporate during the painting process. Machines, tools, prototypes and other process equipment not sold to customers are not covered by this standard.

The standard refers to the use of substances in concentrations > 0.1% weight by weight in non-separable, homogeneous materials, not on the total content in the component. This limit applies unless other thresholds are specified in the regulatory text. Certain substances like POPs are restricted to very low thresholds.

*Example*: Perfluorooctanoic acid (PFOA) is restricted above 0,025 mg/kg (0,0000025 % by weight).

For certain automotive parts, additional substance restrictions apply due to legal requirements. Those legal requirements shall be stated in the corresponding technical product documentation by the design owning departments. For example, RoHS (2011/65/EU) restrictions apply to electronic and electrical equipment (EEE) which is removable from vehicles but not for EEE which is installed and cannot fulfil its function outside the vehicle.

*Examples for parts covered by RoHS*: Remote control, removable vehicle charging cable, detachable coffee maker/cooling box, etc.

Furthermore, certain non-automotive products which are sold by MAN and Scania for certain applications fall under the scope of RoHS and thus also fall under those substance restrictions. Those legal requirements shall be stated in the the corresponding technical product documentation by the design owning departments.

*Example*: Parts and components in engines for non-road mobile machinery (like power generators) are in scope of RoHS and, therefore, customers require compliance with the substance restrictions under RoHS. Furthermore, parts and components for marine applications have to comply with the substance restrictions of the regulation (EU) No 1257/2013 on ship recycling.

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## 4 Prohibited substances

Prohibited substances must not be present in the products.

Prohibited substances are either prohibited by regulations for use in certain applications, or shall not exceed certain regulated threshold limits.

The use of substances in new products or mixtures is also prohibited when their use is forbidden by law at a known date in future.

Prohibited substances in products are classified as “Prohibited” in GADSL, with following exempted substances uses:

- Lead and its compounds (if the use is only regulated by EU ELV Directive 2000/53/EC)
- 1,1,1,2-Tetrafluoroethane (HFC 134a, R134a, CAS 811-97-2) as refrigerant

In GADSL, some substances are classified as “Prohibited” in certain applications while they are classified as “Declarable” in other applications. The prohibition in this standard applies to the applications where the substance is classified as “Prohibited”. In the event that adequate information about the application is missing, the substance shall be treated as “Prohibited”.

## 5 Restricted substances

Restricted substances should not be present in the products. Active work shall be carried out to find less hazardous alternatives to be introduced as soon as technically and economically possible. In special cases when functional requirements dictate that a substance with restrictions has to be used, exemptions can be granted by the part responsible engineer, see instruction in Section 6.2.

Restricted substances are identified as prioritised substances of concern due to effects to human health, environment and/or risk for future prohibition.

Restricted substances are:

- Substances included in the Candidate List of Substances of Very High Concern for Authorisation under REACH as long as they are not yet included in Annex XIV of REACH.
    - Authorisation List substances in REACH Annex XIV are regarded as prohibited.
- Lead and its compounds
    - The use of lead in applications exempted in Annex II of the EU ELV Directive 2000/53/EC will be allowed without the requirement for further evaluation of possible alternatives and without the need for a special exemption from requirements in CVS55.
- Per- and polyfluoroalkyl substances (PFAS)
- Persistent Organic Pollutants (POPs) substances listed in Annex A and B in Stockholm Convention but haven’t been classified as prohibited GADSL yet.

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# 6 Brand-specific requirements

## 6.1 Additional applicable standards for Chemical Products

**Scania**

For Scania, the following standards are applicable for chemical products used in Scania's product development, production processes, the sales and services network or in processes concerning facilities and maintenance:

- STD4158: Prohibited substances which shall not be present in Chemical products
- STD4159: Restricted substances which should not be present in Chemical products
- STD4160: List of Prohibited and Restricted Substances

Please note that more information about the application of the specific standards is given in Annex A.

## 6.2 Exemption for restricted substances

In special cases when functional requirements dictate that a substance with restrictions has to be used, exemptions can be granted with the following documentation:

**SCANIA**

The exemption shall be documented in the Scania requirement specification. For part drawing, the exemption is documented using a label according to SV1268-123 in Guide24.

| Zone | Exemption(s) from CVS55 |
|---|---|
| | |

**Figure 1 – Label SV1268-123 indicating exemption from CVS55**

**MAN**

In such cases, this has to be documented according the technical standard or named according the valid technical description, see example in Figure 2.




**Figure 2 – Entry in drawing panel – e.g., surface protection according DIN EN ISO 4042**

Internally, to ensure that the part is only used for specific defined cases, in the MAN master data system a fitting application note (GAH) has to be selected.

## 7 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

| Document designation | Title |
|---|---|
| CVS83 | Requirements for Reporting Material Data Sheets (MDS) in the International Material Data System (IMDS) |
| Guide24* | Catia Drawing Label Library Index |
| STD4158 | Prohibited Substances - Chemical Substances which must not be used in Chemical Products within Scania - General |
| STD4159 | Restricted Substances - Chemical substances with limited use in Chemical Products within Scania - General |
| STD4160 | List of Prohibited and Restricted Substances in Chemical Products |

* This Scania document is not distributed on Scania Supplier Portal. For Scania internal use only!

## Annex A (informative) Guidance on applicable standards (for Scania only)

Annex A shall give guidance on the application of Scania standards for restricted and prohibited substances. There are different standards applicable depending on the specific usage according to Figure A.1:

**CVS55**:
Prohibited and restricted substances in Scania's products

**Scope**: Scania's products (including prototypes)

**Based on**: Global Automotive Declarable Substance list (GADSL) with some exemptions

**Substance reporting**:
International Material Data System (IMDS) according to CVS83

**STD4158/STD4159/4160:**
Prohibited and restricted chemical products

**Scope**: Chemical products
*(used in Scania's product development, production processes, the sales and services network or in processes concerning facilities and maintenance)*

**Based on**: Criteria in STD4158/STD4159

**Substance reporting**:
Safety Data Sheets (SDS)

**Figure A.1 – Application area of the standards**

The flowchart below illustrates which Scania Standards shall be used in the introduction process of products and parts at Scania. Observe that certain products and parts to be introduced at Scania need to comply with both STD4158/STD4159/STD4160 and CVS55.

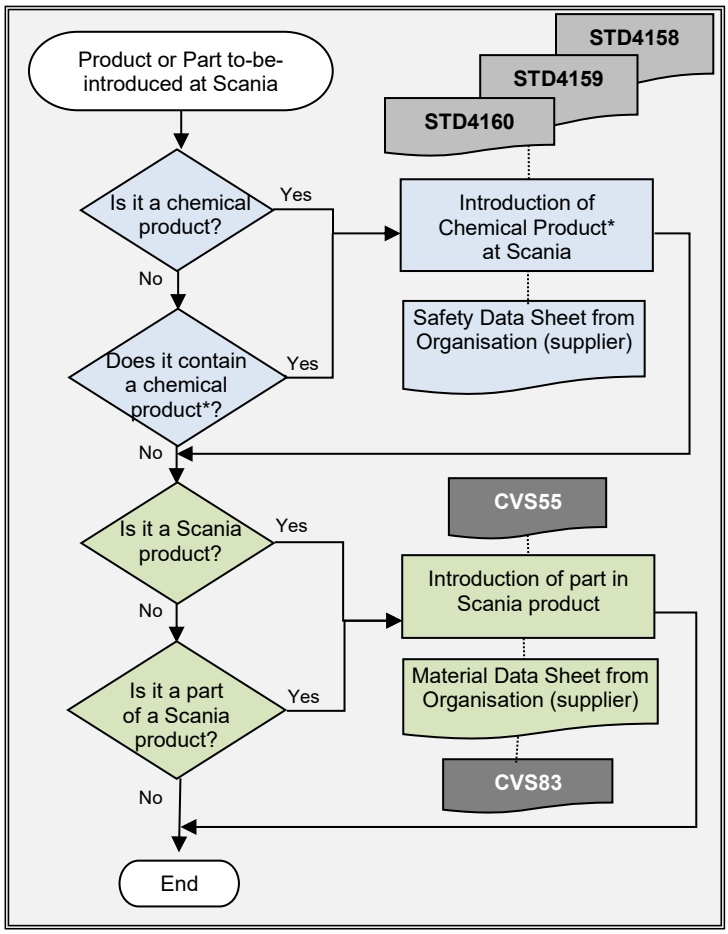



**Figure A.2 – Flowchart**

## Annex B (informative) Change history

| Release date | Changes |
|---|---|
| **2024-05** | Restricted substances section has been revised to include PFAS substances, and POPs substances listed in Annex A and B in Stockholm Convention but haven't been classified as prohibited GADSL yet. Brand specific information moved to new chapter 6 *Brand-specific requirements*. Updated internal references. Editorial changes. |
| **2024-02** | Reference to STD4384 is removed. Annex B *Change history* is added. |
| **2022-05** | CVS55 is released. |

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