

	<h1>CVS55</h1>	 <b>SCANIA</b>
Release date 2024-02		Info class 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.

<b>Technical responsibility:</b>  MAN Truck & Bus SE: Standardization, EHOS  Scania CV AB: Regulations & Standards, EMC Material Compliance, EMCC	<b>Standardisation organisations:</b>  MAN Truck & Bus SE: Standardization, EHOS  Scania CV AB: Corporate Standards, EMCC	Continuation page 1 to 9
		<b>Replacement for:</b> CVS55:2022-05
		<b>Distribution:</b> 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 previous issue

Reference to STD4384 has been removed. Changes are shaded. Annex B *Change history* is added.

## Introduction

The brands MAN and Scania 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.

## Scania

For Scania the following standards are associated:

- Restrictions 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

The former Scania standard STD4400 was replaced by CVS55.

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

## 1 Scope

This standard deals with legally regulated substances that remain in the products 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, 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.

## **2 Terms, definitions and abbreviations**

### **ELV Directive**

The EU end-of-life vehicle (ELV) Directive (2000/53/EC) aims at 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**

Fluorinated greenhouse gases are regulated by the directive (EU) 517/2014. It is the legal base to implement the requirements from Montreal protocol.

### **GADSL**

Global Automotive Declarable Substance List, 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 implements the commitments of the Union under the Stockholm Convention on Persistent Organic Pollutants (POPs) and under the Protocol to the 1979 Convention.

### **Product**

All articles or mixtures itself, which are sold by the brands of MAN and Scania.

### **REACH**

EU REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) regulation (1907/2006/EC) aims to improve the protection of human health and the environment from the risks that can be posed by chemicals, while enhancing the competitiveness of the EU chemicals industry.

The use of substances in the EU requires registration. Substances are classified and substances of very high concern (SVHC) are further subject to requirements on notification of substance use to authorities, professional users and consumers (Article 33). Substance Authorisation (Annex XIV) requirements or Restrictions (Annex XVII) may also apply.

### **REACH Candidate List**

Candidate List of **Substances of Very High Concern** for Authorisation. The list is issued by 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.

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 on the Authorisation List (REACH Annex XIV) cannot be placed on the EU market or used after the so-called "sunset date" without a granted authorisation.

### RoHS

RoHS stands for Restriction of Hazardous Substances and applies for electrical and electronic equipment (EEE). Installed EEE in vehicles, ships and other means of transport are out of scope. RoHS (EU Directive 2011/65/EU) restricts the use of lead, cadmium, mercury, hexavalent chromium, brominated flame retardants PBDE, PBB and 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 as well.

## 3 Application and delimitations

The use of certain substances may be of concern to human health and the environment.

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 the 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 otherwise stated. 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, vehicle key with transponder, removable vehicle charging cable, detachable coffee maker/cooling box, etc.

Furthermore, for certain non-automotive products which are sold by MAN and Scania for certain applications which are falling under those substance restrictions, additional substance restrictions may apply. 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) which is in scope of RoHS and, therefore, customers require compliance with

substance restrictions under RoHS. Furthermore, parts and components for marine applications have to comply with the substance restriction of the regulation (EU) No. 1257/2013 on ship recycling.

#### **4 Prohibited substances**

Prohibited substances must not be present in the products.

Prohibited substances are either prohibited by regulation 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
- 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.

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 will be allowed without the requirement for further evaluation of possible alternatives and without the need for a special exemption from requirements in CVS55.

**SCANIA**

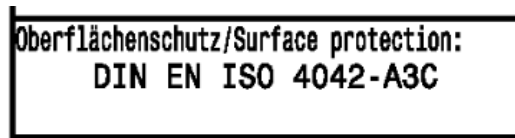
In such cases, this shall be evident in the Scania requirement specification (label on drawings according to SV1268-123 in STD805 etc.).

Zone	Exemption(s) from CVS55

**Figure 1 – Label SV1268-123 indication 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**

MAN internal: 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.

## 6 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
GADSL	<i>Global Automotive Declarable Substance List</i> <a href="#">GADSL   The GADSL is the result of the efforts of a global team from the automotive, automotive parts supplier (tier supplier) and chemical/plastics industries who have organized the Global Automotive Stakeholders Group (GASG).</a>
REACH Candidate List	<i>Candidate List of Substances of Very High Concern for Authorisation</i> <a href="#">Candidate List of substances of very high concern for Authorisation - ECHA (europa.eu)</a>
REACH Authorisation List	<a href="#">Reach Authorisation list</a>
The ELV Directive	<a href="#">ELV Directive</a>
RoHS	<a href="#">RoHS Directive (europa.eu)</a>
POPs regulation	<a href="#">EU POPs regulation (europa.eu)</a>
STD805*	<i>Index for labels for product drawings - CATIA library</i>
STD4158	<i>Prohibited Substances - Chemical Substances which must not be used in Chemical Products within Scania - General</i>
STD4159	<i>Restricted Substances - Chemical substances with limited use in Chemical Products within Scania - General</i>
STD4160	<i>List of Prohibited and Restricted Substances in Chemical Products</i>
STD4352	<i>Reporting of substances and material composition of product-related parts to IMDS</i>

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

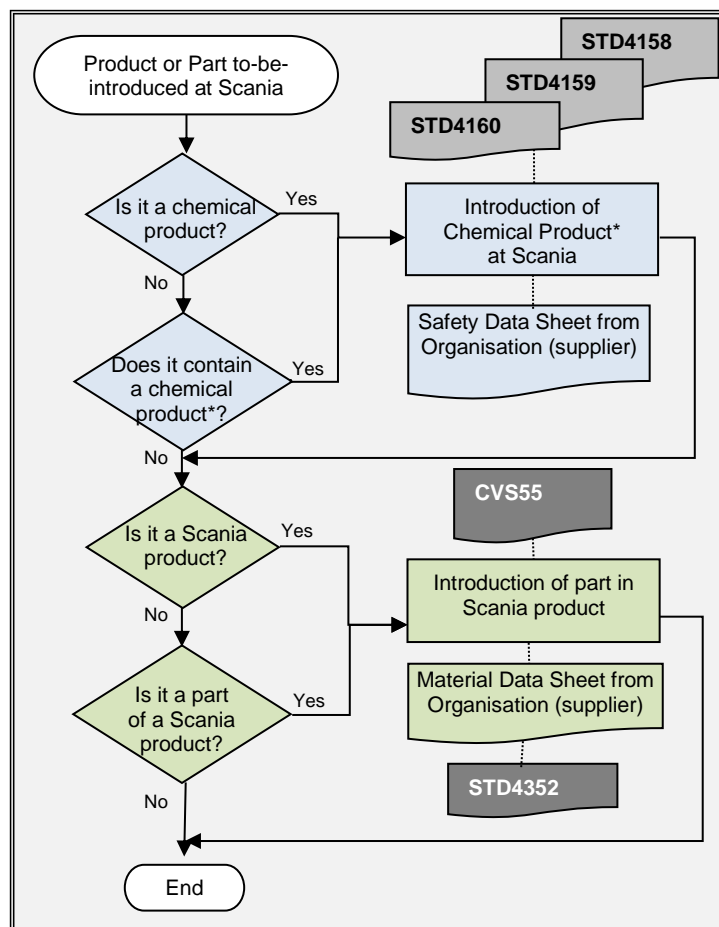
**Annex A (informative) Guidance on applicable standards (for Scania only)**

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:

<p><b>CVS55:</b> Prohibited and restricted substances in Scania's products</p> <p><b>Scope:</b> Scania's products (including prototypes)</p> <p><b>Based on:</b> Global Automotive Declarable Substance list (GADSL) with some exemptions</p> <p><b>Substance reporting:</b> International Material Data System (IMDS) according to STD4352</p>	<p><b>STD4158/STD4159/4160:</b> Prohibited and restricted chemical products</p> <p><b>Scope:</b> Chemical products* (used in Scania's product development, production processes, the sales and services network or in processes concerning facilities and maintenance)</p> <p><b>Based on:</b> Criteria in STD4158/STD4159</p> <p><b>Substance reporting:</b> Safety Data Sheets (SDS)</p>
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**Figure A.1 – Application area of Scania 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



\*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.

**Figure A.2 – Flowchart**



**Annex B(informative)    Change history**

<b>Release date</b>	<b>Changes</b>
<b>2024-02</b>	Reference to STD4384 is removed. Annex B <i>Change history</i> is added.
<b>2022-05</b>	CVS55 is released.