



PARSAN A.Ş.
YASAKLI MADDELER LİSTESİ
PARSAN A.Ş-LİST OF
RESTRICTED SUBSTANCE

Doküman No : 2.720.2.002.03
Yayın Tarihi : 13.11.2018
Bir Önceki Yayın Tarihi : 16.10.2013
Sayfa : 1 / 6

PARSAN A.Ş. – YASAKLI MADDELER LİSTESİ

01. **KARA LİSTE** : Kesin olarak Parsan A.Ş.'ne giremez.
BLACK LİST: : This substances are prohibited in Parsan.
02. **GRİ LİSTE** : Parsan A.Ş. 'nin izniyle sınırlı olarak kullanılabilir.
GRAY LİST: : The usage of these substances are limited.

Dağıtım : TEDARİKÇİLER, TLD, URD, PSD, YKT, KLT, STN, FNS, MHS, UPL, DVM, MUH, BKO, TIM, PRS, YST, UPZ, IHR

Hazırlayan : KAMİL DELİKANLI

Onay : ERDOĞAN USLU

Yetkili imzalar orijinal dosyada muhafaza edilmektedir. Elektronik ortamda imzasız geçerlidir.



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KARA LİSTE – BLACK LIST

Kimyasal Maddeler Listesi

GRUP	KİMYASAL MADDE ADI	CAS NO. 1)	KEMİ/LİSTE 7)	KULLANIM ALANI ÖRNEKLERİ	RİSK 2)
Amines	Methylenedianiline (4,4'-) (MDA)	101-77-9	R, O	Hardener, in paints	C
	Phenyl-β- naphthylamine	135-88-6	R	Antioxidant	C
CFC compounds	CFC 11	75-69-4	R	Cooling agent, freon	O
	CFC 113	76-13-1	R, O	Cooling agent, freon	O
	CFC 114	76-14-2	R	Cooling agent, freon	O
	CFC 115	76-15-3	R	Cooling agent, freon	O
	CFC 12	75-71-8	R, O	Cooling agent, freon	O
Chlorinated hydro - carbons	Carbon tetrachloride	56-23-5	R, O	Solvent	O, C, T
	HCFC 3)	75-45-6 75-68-3 1717-00-6 ve diğerleri	R, O	Blowing agent, solvent	O
	Hexachlorobutadiene	87-68-3	O	Solvent	E, T
	Methylene chloride	75-09-2	R	Solvent, in fuel	C
	PCB	1336-36-3	R	Insulators, oils	E
	1, 1, 1-Trichloroethane	71-55-6	R, O	Solvent	O
	Tetrachloroethylene	127-18-4	R	Solvent	C
Fibres	Asbestos	Several	R	Insulating material	C
Flame retardants	Polybrominated biphenyls (PBB)	Several	R	Textiles, plastics	E, N, C
	Polybrominated diphenyl ethers (PBDE)	1163-19-5 32534-81-9 32536-52-0 63936-56-1 ve diğerleri	R	Textiles, plastics	E
Halons	Halon 1211	353-59-3	R	Fire retardant	O
	Halon 1301	75-63-8	R	Fire retardant	O
	Halon 2402	124-73-2	R	Fire retardant	O
Lubricants	Chlorinated paraffins	85535-84-8 ve diğerleri	O	Oils, fire retardants	E
	Mineral oil with PAHs ⁴⁾	Several	O	Base oils, lubricants	C
Metals	Cadmium + Cd compounds 5)	Several	R, O	Pigment	C, E
	Lead chromate	7758-97-6 ve diğerleri	R, O	Pigment	C, A, E, N
	Mercury + Hg compounds	Several	R, O	Electric equipment	N, E



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KARA LİSTE –BLACK LIST

Kimyasal Maddeler Listesi

GRUP	KİMYASAL MADDE ADI	CAS NO. 1)	KEMİ/LİSTE 7)	KULLANIM ALANI ÖRNEKLERİ	RİSK 2)
Rubber chemicals	Aminobiphenyl (4-) + salts	92-67-1	R	Dye	C
	Benzidine (+ salts)	92-87-5	R	Dye	C
	Thiocarbamide	62-56-6	R	Rubbers and plastics	A,C
Solvents	Benzene 6)	71-43-2	R, O	Petrol, solvent	C
	2-Ethoxyethanol	110-80-5	R, O	Solvent	R
	2-Ethoxyethanol acetate	111-15-9	R, O	Solvent	R
	2-Methoxyethanol	109-86-4	R, O	Solvent	R
	2-Methoxyethanol acetate	110-49-6	R	Solvent	R
	Surface-active agents	Nonylphenol + isomers	25154-52-3 9014-90-8 ve diğerleri	O	Used as ethoxylates
Nonylphenol- ethoxylates		9016-45-9 ve diğerleri	R,O	Cleaning agent	E
Octylphenol		27193-28-8	-	Used as ethoxylates	E
Octylphenol - ethoxylates		9063-89-2 9036-19-5	-	Cleaning agent	E
Diğer	PVC (Poli Vinil Klorür)				
	Per Klor Etilen			Yağ Giderici	
	Di Klor etilen			Yağ Giderici	

- 1) CAS NO. = Kimyasal Madde Uluslararası Tescil / Kayıt numarasıdır. Bu numara, Kimyasal Maddelerin tanımlanması için, uluslararası uygulanan bilimsel sınıflandırma / tanımlama numarasıdır.
- 2) A = Alerji, C = Kanser, T = Toksik (Zehirli), E = Çevreye Zararlı, N = Nevrotoksik (Sinirleri Tahrip Eder), O = Ozon Tabakasını Zayıflatır, R = Züriyete Zarar Verir (Kısırlaştırır).
- 3) Köpük Plastikleri (Suni Süngerleri) şişirmede veya eritmede kullanılan HCFC, **Kara Liste** 'de ele alınmıştır. Soğutma elemanı olarak kullanılan HCFC, **Gri Liste** 'de ele alınmıştır.
- 4) Eğer " Institute of Petroleum " 'un IP 346 metoduna göre yapılan standart test, DMSO maddesini %3 'e eşit ve %3 'ten büyük çıkarırsa ; bu madeni yağın PAH maddesi içerdiği kabul edilir. Bu konu, madeni yağlarda ve diğer kimyasallarda uygulanır.
- 5) Pillerde kullanılan KADMIYUM, **Gri Liste** 'de ele alınmıştır. KADMIYUM 'un diğer kullanımları ise **Kara Liste** 'de ele alınmıştır.
- 6) Motor yakıtında bulunan " BENZEN " için istisna yapılmıştır.
- 7) " **İsveç-Milli Kimyasal Maddeler Müfettişliği** " tarafından listelenmiştir.
O : Gözlem Listesine alınmıştır (Gözlem / İzleme altındadır). Büyük miktarlarda kullanılan bu maddelerin örnekleri (numuneleri) ÖZEL DİKKAT ile gözlemlenecektir.
R = Kullanımı SINIRLANDIRILMIŞ / YASAKLANMIŞ maddeler.



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GRİ LİSTE-GRAY LIST

Kimyasal Maddeler Listesi

GRUP	KİMYASAL MADDE ADI	CAS NO. 1)	KEMİ/ LİSTE 10)	KULLANIM ALANI ÖRNEKLERİ	RİSK 2)
Acids	Hydrofluoric acid (HF)	7664-39-3	O	Pickling, etching	T
Additives	Diphenylamine	122-39-4	O	Lubricants	E,T
	Sodium nitrite 3)	7632-00-0	-	Anti-rust agent	C,T
Biocides (No concentration limits)	Chlorocresol (meta-)	59-50-7	O	Lubricants, paints	E,A
	Chlorocresol (ortho-)	1570-64-5	-	Lubricants, paints	E (probably)
	Chloromethyl isothiazolinone	26172-55-4	O	Aqueous solutions	A
	Methyl isothiazolinone	2682-20-4	O		
	Kathon CG	55965-84-9	O		
	Organotin comp. (trialkyl)	Several	O,R	Cooling water	E
Thiram (TMTD)	137-26-8	O		A,E	
Complex mixtures	Coal tar	8007-45-2 65996-91-0	O,R	Distillation product, filler	C
	Colophony (rosin) (Applies to > 1%)	8050-09-7 8052-10-6 73138-82-6	O O O	Adhesives, paints, cutting fluids	
	Creosote	8001-58-9	O,R	Distillation product, filler	C,E
	Brominated (not PBB + PBDE)	Several	O	Textiles, plastics	E (probably)
Flame retardants	Triphenyl phosphate	115-86-6	R	Also as antioxidant	E
	PFOS, perfluoro octylsulfonates	Several	-	Stain-repellant surface coating for textiles, fire-fighting foam	E
Fluoro compounds					
	2,4-Toluene diisocyanate	584-84-9	O	PUR foams, adhesives	A (asthma)
	2,6-Toluene diisocyanate	91-08-7	O	PUR foams, adhesives	A (asthma)
Hardeners	TGIC	2451-62-9	O	Powder paints	T (mutagen)
	HCFC 141 b	1717-00-6	O	Cooling agent	O
	HCFC 142 b	75-68-3	O	Cooling agent	O
HCFC compounds 4)	HCFC 22	75-45-6	O	Cooling agent	O
	Arsenic + compounds	Several	O, R	Wood preservative	N, C, E
	Cadmium in batteries 5)	Several	O, R	Accumulators	C, E
Metals	Chromium(6+) compounds 6)	Several	O, R	Surface treatment	A, C, E
	Lead alloys 7)	Several	O, R	Alloy	N, E
	Lead + compounds 8)	Several	O, R	Pigment in paints	N, E
	Nickel 9)	7440-02-0	O, R	Surface treatment	A
	Strontium chromate	7789-06-2	O, R	Pigment	C



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Zinc chromate	13530-65-9	-	Pigment	C
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GRİ LİSTE – GRAY LİST

Kimyasal Maddeler Listesi

GRUP	KİMYASAL MADDE ADI	CAS NO. 1)	KEMİ/ LİSTE 10)	KULLANIM ALANI ÖRNEKLERİ	RİSK 2)
Plasticizers	Butyl benzyl phthalate	85-68-7	-	Adhesives, paints	E
	Dibutyl phthalate	84-74-2	O	Adhesives, paints	E,R
	Di(2-ethylhexyl)phthalate DEHP	117-81-7	R	Sealants, plastics	R
	Di(methoxyethyl)phthalate	117-82-8	R	Adhesives, plastics	R
	Dimethyl phthalate	131-11-3	-	Hardeners, paints	T
Solvents	Chloroform	67-66-3	R	Solvent	C,R
	1,2-Dichloroethane	107-06-2	O,R	Additive for fuels	C
	n-Hexane	110-54-3	-	Solvent	N
	Limonene (Applies to > 1 %)	138-86-3	-	Solvent	A,E
	2-Methoxy-1-propanol (Applies to > 0.5 %)	5989-27-5	O	Solvent	R
	Trichloroethylene	79-01-6	-	Solvent	C
Surface-active agents	DHTDMAC	61789-80-8	O	Softener	E
	DSDMAC	107-64-2	O,R	Rinsing agent	E
	DTDMAC	68783-78-8	O	Vehicle care products	E

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- 02) A = Alerji, C = Kanser, T = Toksik (Zehirli), E = Çevreye Zararlı, N = Nevrotoksik (Sinirleri Tahrip Eder), O = Ozon Tabakasını Zayıflatır, R = Züriyete Zarar Verir (Kısırlaştırır).
- 03) Eğer AMİN 'ler mevcut ise Nitrit, kanserojen (kanser yapıcı) NİTROSAMİN meydana getirebilir.
- 04) Köpük Plastikleri (Suni Süngerleri) şişirmede veya eritmede kullanılan HCFC, **Kara Liste** 'de ele alınmıştır. Soğutma elemanı olarak kullanılan HCFC, **Gri Liste** 'de ele alınmıştır.
- 05) Pillerde kullanılan KADMIYUM, **Gri Liste** 'de ele alınmıştır. KADMIYUM 'un diğer kullanımları ise **Kara Liste** 'de ele alınmıştır.
- 06) STD 5713,102 nolu standarda göre test edildiğinde, yüzeyi Krom kaplanmış her partideki parçaların ALTI DEĞERLİKLİ KROM (Cr +6) MİKTARI 'nın ortalama değeri : 0.3 µg/cm² değerini (sınırını) geçmemelidir.
- 07) Avrupa Birliği EU ELV Direktifi 'ne uygun olarak KURŞUN KONSANTRASYON LİMİTLERİ aşağıda belirtilmiştir.
- a) Çelik içindeki KURŞUN KONSANTRASYON LİMİTİ : % 0.35
- b) Alüminyumun işlenmesi amacıyla kullanılan Alüminyum içindeki KURŞUN KONSANTRASYON LİMİTLERİ :
- 2005 yılında : % 2



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- 2008 yılında : % 1
- c) İşleme amacı dışında kullanılan Alüminyum içindeki KURŞUN KONSANTRASYON LİMİTİ : % 0.4
- d) Binde Dört (% 0.4) Bakır içeren Bakırlı Fren Pabuçlarındaki/Balatalarındaki Bakırın içinde bulunan KURŞUN KONSANTRASYON LİMİTİ : % 4 (yüzde dört)
- 08) Eğer söz konusu parça, EU ELV Direktifi 'nin Ek-2 'sinde muaf tutulmamış ise ;
- Boya Pigmenti 'ndeki Metalik Saf Kurşun 'a uygulanan KURŞUN LİMİTİ : Gri Liste 'nin genel limiti olan % 0.1 'dir.
- Boya Pigmenti 'ndeki Kurşun Bileşiklerindeki KURŞUN LİMİTİ : % 0.01 'dir.
- 09) 94/27/EG nolu Avrupa Birliği Direktifi 'ne göre, yüzey kaplamadaki NİKEL, Nikel kaplanmış parçanın her santimetrekaresi başına serbest kalan (açığa çıkan) NİKEL, haftada 0.5 mikrogram (0,5 µg nikel/cm²/hafta) sınırını geçtiği takdirde bu Nikel Kaplamalı Parça, GRI LİSTE sınıfına girer (Bknz. (EN) 1810:1998, EN 1811:1998 ve EN 12472:1998.
- 10) " **İsveç-Milli Kimyasal Maddeler Müfettişliği** " tarafından listelenmiştir.
O : Gözlem Listesine alınmıştır (Gözlem / İzleme altındadır). Büyük miktarlarda kullanılan bu maddelerin örnekleri (numuneleri) **ÖZEL DİKKAT** ile gözlemlenecektir.
R = Kullanımı **SINIRLANDIRILMIŞ / YASAKLANMIŞ** madde

Referans Dokümanlar

VDA 232-101 Global Automotive Declarable Substance List

Global Automotive Declarable Substance ListOriginal Version: GADSL (www.gadsl.org)**VDA**
232-101**1. GADSL Objectives**

Major objectives of automotive product development include continuous improvements in quality, safety, and the reduction of environmental impact throughout vehicle life cycle. As much as possible, these objectives should be achieved in an efficient, cost effective way to optimize consumer value. A large number of construction, operational and processing materials are used in the automotive manufacturing chain, and their selection and proper use can have significant impact on these objectives.

To meet these objectives, an ongoing dialogue and information flow within the global automotive supply chain, including automotive original equipment manufacturers (OEMs), tier suppliers and material suppliers has been established, called the Global Automotive Stakeholder Group (GASG). Early information and dialogue up and down the supply chain will help facilitate compliance with current and future regulations, as well as take into account customer requirements to ensure sustainable products. Optimized handling of relevant information flow can help OEMs meet existing and projected reporting requirements in a consistent, understandable and efficient way.

The GASG organization consists of three regions, Americas, Europe/Africa/Middle East, and Asia/Pacific. Regional membership and participation is open to all stakeholders in the automotive supply chain. Each of the three regions nominates six members to sit on the governing body of the GASG, called the Steering Committee (SC). The SC meets annually or more at its prerogative to decide on the GADSL and to provide a transparent and open process for decision making.

The product of the GASG dialogue is the Global Automotive Declarable Substance List (GADSL). The GADSL covers declaration of certain information about substances (regulated, projected to be regulated, or for – by consensus within GASG SC - it is scientifically demonstrated that their presence may create a significant risk to human health and/or to the environment) relevant to parts and materials supplied by the supply chain to OEMs. The information is applicable to the use of these parts or materials in the production of a vehicle up to its usage and relevant to the vehicle's re-use or waste disposal.

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The intent of GADSL is to become the company specific list for declaration of parts composition within the automotive industry. It provides a definitive list of substances requiring declaration with the target to minimize individual requirements and ensure cost-effective management of declaration practice along the complex supply chain. The scope is to cover declarable substances in the flow of information relevant to parts and materials supplied throughout the automotive value chain, from production to the end of life phase. **The GADSL only covers substances that are expected to be present in a material or part that remains in the vehicle or part at point of sale.**

This approach is a voluntary industry initiative designed to ensure integrated, responsible and sustainable product development by OEMs and their supply chain. Its purpose is to minimize individual requirements and ensure cost-effective management of declaration practice along the large and complex global supply chain.

2. Application of the GADSL

The use of certain substances in vehicle parts may be a risk factor to human health and the environment. Information exchange along the vehicle supply chain helps manage those potential risks while also meeting customer requirements. The GADSL is used to enhance further dialogue and cooperation along the supply chain on the benefits and potential risks of certain substances or groups of substances in a specified use within vehicle parts/materials. Declaration of a substance does not mean, however, that the substance is prohibited from being used in vehicle parts or is to be de-selected from use. Any declaration process using the GADSL must respect the framework formulated in this preface.

Definitions

Substances	Chemical elements or chemical compounds as parts of materials or preparations
Preparations	Mixtures, composed of two or more substances
Materials	Chemical elements, chemical compounds or preparations thereof in finished state used to manufacture products/articles
Products/articles	Materials, which have been transformed during production to take a specific shape, surface or form, which has a greater influence on their function than their chemical composition does.
Parts	Single components made up of one or more homogenous material(s)

Criteria for Declarable Substances

The decision to list a substance on the GADSL is based on the following criteria:

- The substance should be expected to be present in a material or part in the vehicle. Either of the following conditions should apply:
 - The substance is regulated¹, or is projected to be regulated by a governmental agency or authority, or
 - It is demonstrated, by testing under OECD (Organization for Economic Cooperation & Development) guidelines for testing chemicals, conducted under Good Laboratory Practice (according to the OECD Principles on Good Laboratory Practice as revised in 1997), that the substance may be associated with a significant hazard to human health and/or the environment, and its presence in a material or part in a vehicle may create a significant risk to human health and/or the environment. Other scientifically valid methodology, based on the weight of evidence, may also be considered.
- A substance that causes a functional problem in vehicle design may be included if its presence in a vehicle part exceeds a level shown to be problematic by an international industry standard test².
- Reportable threshold levels will be based on the lowest level required by regulation or reasonably required by scientific evaluation.

Declarable Substance Classification

A declarable substance when present in a material or part in a vehicle will be shown on the GADSL as "P" or "D", defined as follows:

P = Prohibited

A substance designated "P" is either prohibited by regulation for use in certain applications or may not exceed regulated threshold limits.

D = Declarable

A substance designated "D" must be declared if it exceeds the defined threshold limits.

¹ Due to potential effects on human health or the environment related to the Automotive industry

² Examples would be emissions, like odor testing or fogging. Currently there are numerous tests. Development of a quantitative industry standard test would reduce resource requirement and uncertainty for the supply chain.

Depending on its specific application, the same substance could be classified "P" in one end use, and "D" in another end use. When this is the case, both classifications for the substance will be shown on the GADSL with examples under the application column.

Declaration thresholds are defined by specific application of the substance in automotive parts. Any declarable substance below the declaration level does not have to be reported. These levels, unless otherwise indicated, are 0.1 g/100g (weight %) of non-separable, homogeneous materials, not on the total content in the component or assembly.

Reason Codes

Reason codes have been developed to explain why a substance has been included in the GADSL. Each declarable substance will be listed with one of the following reason codes to facilitate dialog within the supply chain:

LR = Legally Regulated

A substance legally regulated because its use in a vehicle part or material poses a significant risk to health and or the environment.

FA = For Assessment

A substance projected to be regulated by government agencies, upon decision by the GASG Steering Committee.

FI = For Information

A substance tracked for information purposes only, upon decision by the GASG Steering Committee. After discussion at the GASG Steering Committee and on an **exceptional basis**, an OEM may include an individual substance or family of substances on the list under this (FI) reason code.

LR, FA and FI substances should not be construed to mean that the substance is prohibited from being used in a vehicle part, or is to be de-selected from use.

Individual substances should be listed unless all substance members of the family, or category, meet the criteria for being declarable.

In two cases substance families have the classification "D, except". This means that all substances within that family are declarable except those that are listed directly below labeled with "P" (e.g. Polybrominated Diphenyl Ethers).

In order to furnish CAS numbers for individual substances of a chemical family or group that appears on the GADSL, a separate reference list is provided on this web site. A 2005 priority of the GASG will be to review individual substances identified by CAS numbers on the reference list against GADSL criteria. The sole purpose of this reference list is to facilitate communication and declaration relating to the GADSL within the automotive supply chain to the OEMs.

3. GADSL Validity

The valid GADSL will be the current English version on <http://www.gadsl.org>. The content of the GADSL and its application does not relieve parties in the supply chain from obligation to comply with all existing relevant regional and national regulations in their business to business dealings.

4. Change Management Process

The GADSL will be updated and published annually in February according to improved knowledge in order to achieve a high standard of product safety and environment protection. At the latest 12 months after the publication date, any declaration should be performed according to this updated version.

Requested changes to the GADSL must be received by July 15 each year in order to be considered for the next version. For this input, comments and questions please contact one of the persons listed on the GADSL website.

5. Listed substances

The table on the following pages shows the substances that are covered by the GADSL. Any substance name that has a "*" next to it is to be considered as a group name covering several individual substances. For a listing of those potentially individual relevant substances, please refer to the "Reference List" that can be found on the GADSL website.

6. Abbreviations Used

- EU-D European Union Directive including amendment and adaptation directives:
EU-D 67/548/EEC: Directive on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labeling of preparations made from dangerous substances
EU-D 76/769/EEC: Directive on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations
EU-D 2000/53/EC: Directive on end-of life vehicles
- EU-R EU Regulation including amendment and adaptation regulations:
EU-R 594/91/EEC: Council Regulation on substances that cause the depletion of the ozone layer
- US-EPA US-EPA Regulations on Class 1 and Class 2 Ozone Depleting Substances (ODS) Under section 602 of the *Clean Air Act*, published on January 19, 1996 in the U.S. Federal Register

	Substance	CAS-No.	Classification	Reason code	Application	Source (Legal requirements)	Generic examples	Threshold (0,1% if not stated otherwise)
1	Acetaldehyde	75-07-0	D	FI		EU-D 67/548/EEC	Emitted substance from polymer components	
2	Acetamide	60-35-5	D	FI		EU-D 67/548/EEC	Solvent additive, stabilizer for softening agents	
3	Acrylamide	79-06-1	D	FI		EU-D 67/548/EEC	Production of polyacrylamide (residual monomer)	
4	Acrylonitrile	107-13-1	D	FI		EU-D 67/548/EEC	Production of plastics, resins and rubbers eg. ABS (residual monomer)	
5	Ammonium Perchlorate	7790-98-9	D	FI		Pyrotechnical compound	Pyrotechnical compound	
6	Aniline and its salts (*)		D	FI		EU-D 67/548/EEC	Pigments, sulfonamides, isocyanate - plastics	
7	Antimonytrioxide (Diantimonytrioxide)	1309-64-4	D	FI		EU-D 67/548/EEC	Flame retardant	
8	Aromatic amines and its compounds: (*) (4-Aminobiphenyl or its salts) (Benzidine or its salts) (2-Naphthylamine or its salts) (4-Nitrobiphenyl or its salts)		P	LR		EU-D 67/548/EEC EU-D 76/769/EEC	Possible impurities in certain colours for natural textiles (production prohibited in Europe)	0,01%
9	Arsenic and its compounds (*)		D	FA		EU-D 67/548/EEC EU-D 76/769/EEC	Paints, smelted materials, biocides (including wood treatment), leather and textile finishes, glasses, pyrotechnic objects, metal finishes, electronics	0,01% (unless present in metals & alloys, then the declaration limit is 0,05%).
10	Asbestos (*)		P	LR		EU-D 76/769/EEC,	Friction pads, gaskets, insulations	

	Substance	CAS-No.	Classification	Reason code	Application	Source (Legal requirements regulations)	Generic examples	Threshold (0,1% if not stated otherwise)
11	Azo-dyes which can release carcinogenic amines (*)		P	LR		EU-D 2002/61/EC	In dyes for textiles etc.	30 ppm
12	Barium compounds (organic or water soluble) (*)		D	FI		EU-D 67/548/EEC	Colour pigments, stabilizers for PVC, lubricant additives	1%
13	Benzene	71-43-2	D	FA		EU-D 76/769/EEC	Fuel constituent, raw material/contaminant in other chemicals	0,01%
14	Beryllium and its compounds (*)		D	FI		EU-D 67/548/EEC	Electric contacts, relays and switches; electronics	
15	Biocidal coatings / biocidal additives (*)		D	FA		EU-D 2032/2002/EEC C	Biocidal and biostatic treatments of polymers, textiles, and other components susceptible to microbiological attack (e.g. mobile air conditioning systems)	Any intentionally added content
16	Butadiene (1,3 - Butadiene)	106-99-0	D	FI		EU-D 67/548/EEC	Manufacturing of synthetic rubber for tyres, as homopolymerisate (BR), as copolymerisate with Styrene (SBR) or Acrylonitrile (NR), starting product of Sulfolane, Chloroprene, Hexadamine, softeners, Tetrahydrophthalic acid anhydride, residual monomer in ABS	
17	Butylphenol (2,4,6-tri-tert-)butylphenol	732-26-3	D	FI		Japan (Chemical Substances control Law)	Petrochemical products	

Substance	CAS-No.	Classification	Reason code	Application	Source (Legal requirements regulations)	Generic examples	Threshold (0,1% if not stated otherwise)
18	Cadmium and its compounds (*)	P	LR	All applications except those listed below.	EU-D 2000/53/EEC EU-D 67/548/EEC EU-D 76/769/EEC	Surface protection of metals, stabilizers in paints and plastics, electronics	Any intentionally added content must be reported. Impurities above 0,01% must be reported.
18.1		D	LR	Batteries for electric vehicles. Thick film			
18.2		D	LR	pastes in electronic equipment until July 1, 2006..			
19	Chlorinated hydrocarbons (*) 1,1,1 Trichloroethane Tetrachloromethane (Tetrachlorocarbon)	D, except P	FA LR LR		EU-D 67/548/EEC EU-D 94/60 Montreal Protocol	Leather, paints, rubbers, adhesives	
20	Chlorinated or Brominated Dioxins or Furans (*)	P	LR		ChemVerbots V	Impurities in products	Content above 10 ppb
21	Chloroaniline	D	FI		EU-D 67/548/EEC	Hardener or cross linking agent for polymers and epoxy resins	
22	Chloroepoxypropane (1-Chloro-2,3-epoxy-propane)	D	FI		EU-D 67/548/EEC	Residual monomers in epoxy resins	

	Substance	CAS-No.	Classification	Reason code	Application	Source (Legal requirements regulations)	Generic examples	Threshold (0,1% if not stated otherwise)
23	Chloro-fluoro-carbons (CFC) or other Ozone depleting substances (*)		P	LR		EU-R 594/91/EEC	Coolants, propellants, cleaners, solvents, impregnating agents, blowing agents (PU production)	
24	Chloroparaffines, unbranched (only SCCP and MCCP) (*)						Flame retarding substances	
	Short Chained Chlorinated paraffines (SCCP)		P	LR		EU-D 76/769/EEC		
	Medium Chained Chlorinated paraffines (MCCP)		D	FI		UK DEFRA		
25	Chromium(VI)-salts (*)		P	LR	All applications except those listed below.	EU-D 67/548/EEC EU-D 2000/53/EEC	Chromium pigments, chromated surfaces e.g. "Chromium Yellow", corrosion inhibitors, residues from dyeing and leather tanning.	Any intentionally added content must be reported. Impurities above 0,1% must be reported.
25.1			D	FA	Absorption refrigerators in motorcaravans			
25.2			D	FA	Corrosion preventive coatings on parts until July 1, 2007.			
26	Cobalt and its compounds (*)		D	FI		EU-D 67/548/EEC	Hard metals, galvanic Zn-Co-plating, element in metals	

Substance	CAS-No.	Classification	Reason code	Application	Source (Legal requirements regulations)	Generic examples	Threshold (0,1% if not stated otherwise)
27 Colophony (Rosin) (*)		D	FI		ACGIH Worldwide - Documentation of the TLVs and BEIs with other Worldwide Occupational Exposure Values; 2003.	Solders, adhesives, sealants	
28 Copper, metallic	7440-50-8	D	FI	Dispersive applications (Brake and Friction linings)	SoC in dispersive friction material applications due to environmental impact potential	Alloys, Wiring, Friction linings, Electronics	
29 Cyclododecane, hexabromo (HBOD)	25637-99-4	D	FI		EU risk assessment	Flame retardant	
30 Diamino-diphenyl-methane (4,4'-Diaminodiphenylmethane)	101-77-9	P	LR		EU-D 67/548/EEC	Preliminary and intermediate product of resins, adhesives, dyes, curing agent, accelerator.	
31 Dichloropropanol (1,3-Dichloro-2-propanol)	96-23-1	D	FI		EU-D 67/548/EEC	Solvent for anti-wrinkle agents and flame retardants in textiles, and in the production of epoxy resins	
32 Dimethylformamide (N,N-Dimethylformamide)	68-12-2	D	FI		1999/137/EC 91/689/EEC		
33 Diorganotin compounds (e.g. dialkyltin compounds) (*)		D	FI		EU-D 67/548/EEC	Stabilizer for polymers	

	Substance	CAS-No.	Classification	Reason code	Application	Source (Legal requirements regulations)	Generic examples	Threshold (0,1% if not stated otherwise)
34	Ethanol, 2,2',2"-nitrioltris-	102-71-6	D	FI		Norway Bestillingsnr. 463 (Risk of N-nitroso compound formation in coolant admixtures)	Coolant component	
35	Ethyl-/ Methyl-Glycols or their Acetates (*)		D	FI		EU-D 67/548/EEC		
36	Formaldehyde	50-00-0	D	FI		EU-D 67/548/EEC	Residues and degradation products of plastics (aminoplasts, urea- and melamine resins, foam plastics, vulcanization accelerators, basis for synthetic tannins, biocides, adhesives, formed woods	Any intentionally added content must be reported. Impurities above 0,1% must be reported. Any material with the potential to emit formaldehyde must be indicated
37	Halons (*)		P	LR		EU-R 594/91/EEC	Fire extinguishers	
38	Hexachlorocyclohexane	58-89-9	D	FI		GefStoffV with Annex IV Nr. 5	Insecticide, substance in wood protecting compounds	

	Substance	CAS-No.	Classification	Reason code	Application	Source (Legal requirements)	Generic examples	Threshold (0.1% if not stated otherwise)
39	Hexamines (*)		D	FI		Not currently regulated but releasable hexamines are relevant to vehicle interior air quality		
40	Hydrazine	302-01-2	D	FI		EU-D 67/548/EEC	Residual monomers in plastics, pigments and adhesives, antioxidants stabilizing of Amines, Phenols, in oils, greases, natural latex; blowing agents for foamed plastics	
41	Hydrobromofluorocarbons; HBFC's (*)		P	LR		Montreal Protocol; EU Regulation (EC 2037/2000); US EPA Class I ODS	Refrigerant	
42	Hydrochlorofluorocarbons; HCFC's (*)		D	FA	All applications except those listed below.	Montreal Protocol; EU Regulation (EC 2037/2000); US EPA Class II ODS	Refrigerant	

Substance	CAS-No.	Classification	Reason code	Application	Source (Legal requirements regulations)	Generic examples	Threshold (0,1% if not stated otherwise)
42.1		P	LR	servicing vehicles produced prior to December 2001 (where legally permitted)			
43	Hydrofluorocarbons; HFC's (*)	P	LR	All applications except those listed below	Kyoto Protocol	Refrigerant	
43.1		D	FA	All vehicle-related refrigerants			
44	Lead and its compounds (*)	P	LR	All applications except those listed below.	EU-D 2000/53/EEC EU-D 67/548/EEC	Lead as component in metals and alloys: e.g. bearing metals, steel, brass, aluminium processed in automated machines. Lead compounds, e.g. lead-containing stabilizers and pigments, corrosion inhibitors etc.	Any intentionally added content must be reported. Impurities above 0,1% must be reported.
44.1		D	FA	Steel alloys and galvanized steel with ≤ 0,35% Lead			
44.2		D	FA	Aluminium alloys with ≤ 2% Lead until July 1, 2005			

Substance	CAS-No.	Classification	Reason code	Application	Source (Legal requirements)	Generic examples	Threshold (0,1% if not stated otherwise)
44.3		D	FA	Aluminum alloys with \leq 1% Lead until July 1, 2008			
44.4		D	FA	Aluminum alloys with \leq 0,4% Lead as impurities, not intentionally introduced. Until July 1, 2008			
44.5		D	FA	Copper alloys with \leq 4% Lead			
44.6		D	FA	Wheel balance weights intended for service and production of vehicles type approved before July 2003, allowed until July 1 2005			

	Substance	CAS-No.	Classification	Reason code	Application	Source (Legal requirements)	Generic examples	Threshold (0,1% if not stated otherwise)
44.7			D	FA	Vulcanizing agents/stabilizers in elastomers for fluid handling/and Powertrain applications until July 1, 2005.			
44.8			D	FA	Stabilizer in protective paints until July 1, 2005			
44.9			D	FA	All carbon brushes in electric motors for vehicles type approved before July 2003. Allowed until July 1, 2005			
44.10			D	FA	Copper containing \leq 0,4% lead as an impurity (not intentionally introduced) in brake linings for vehicles. Allowed until July 1, 2007			

Substance	CAS-No.	Classification	Reason code	Application	Source (Legal requirements)	Generic examples	Threshold (0,1% if not stated otherwise)
44.11		D	FA	Valve seats for engines developed before July 1, 2003. Allowed until July 1, 2006.			
44.12		D	FA	Pyrotechnic initiators. Allowed until July 1 2007.			
44.13		D	FA	Vehicle batteries			
44.14		D	FA	Vibration dampers			
44.15		D	FA	Electrical components containing lead in a glass or ceramic matrix (except for glass in bulbs and the glaze of spark plugs).			
44.16		D	FA	Lead-bronze bearing-shells and bushings			
44.17		D	FA	Solder in electronic circuit boards and other electric applications			

	Substance	CAS-No.	Classification	Reason code	Application	Source (Legal requirements)	Generic examples	Threshold (0,1% if not stated otherwise)
45	Mineral Fibers (Natural or Synthetic) (*)		D	FI		EU-D 67/548/EEC	Friction lining, screens, re-enforcements, insulation, cables	
46	Mercury and its compounds (*)		P		All applications except those listed below	EU-D 2000/53/EEC EU-D 67/548/EEC EU-D 76/769/EEC	Metallic mercury, and inorganic and organic mercury compounds used in high intensity discharge (HID) lamps, electric switches, luminescent material for instrument lighting, pyrotechnic initiators etc.	Any intentionally added content must be reported. Impurities above 0,1% must be reported.
46.1			D	FA	High Intensity Discharge Lamps.			
46.2			D	FA	Instrument panel displays			
47	Methanol	67-56-1	D	FI		Norway, Sweden (SFS 1985:840; SFS 1986:8), Denmark, Finland	Window Washer fluid applications	
48	Methylacrylamidomethoxy-acetate	77402-03-0	D	FI		EU-D 67/548/EEC	production of polymers	
49	Monomethylidibromodiphenylmethane	99688-47-8	D	FI		EU Directive 76/769/EEC	Residues and decomposition products in production of polymers	
50	Monomethyldichlorodiphenylmethane	81161-70-8	D	FI		EU Directive 76/769/EEC	Residues and decomposition products in production of polymers	

	Substance	CAS-No.	Classification	Reason code	Application	Source (Legal requirements regulations)	Generic examples	Threshold (0,1% if not stated otherwise)
51	Monomethyltetrachlorodiphenylmethane	76253-60-6	D	FI		EU Directive 76/769/EEC	Residues and decomposition products in manufacture of polymers	
52	Nickel and its compounds (*)		D	FI		EU-D 76/769/EEC	Welding electrodes, flame spraying, special materials, component in metals	
53	Nitrites (*)		D	FI		EU-D 67/548/EEC	Additives in engine coolants, vulcanising agents in rubber products, anticorrosion surface additive. Reaction product precursor for potentially carcinogenic N-nitroso-compounds	
54	Nitrocellulose	9004-70-0	D	FI		Pyrotechnical compound	Pyrotechnical compound	
55	Nitroso amines (*)		P	LR		EU-D 67/548/EEC		
56	Nonylphenol ethoxylates (*)		D	FI		EU-D 2003/53/EC	Surfactants, leather processing	
57	Pentachlorophenol (PCP) and its salts (*)		P	LR		EU-D 67/548/EEC EU-D 76/769/EEC	Wood preservative, salts used in leather treatment, stabilizer for latex	

	Substance	CAS-No.	Classification	Reason code	Application	Source (Legal requirements)	Generic examples	Threshold (0,1% if not stated otherwise)
58	Perfluoroalkyl compounds, includes Perfluoroalkyl sulfonates (e.g. PFOS), fluorotelomers, and telomer-based polymeric substances (*)		D	FA		Certain PFOS are increasingly recognised as potentially persistent, bioaccumulative, and toxic. These compounds are included in order for the automotive industry to gather data/respond to regulatory inquiries.	Surface coatings	
59	Phenol	108-95-2	D	FI		EU-D 67/548/EEC	Residual monomer in phenolic resins, epoxy resins, anti-oxidant in phenol derivatives, decomposition product in polymeric materials, wooden materials and textiles	
60	Phenylendiamines and its salts (*)		D	FI			Dyes, chemical intermediate	
61	Phthalates (Selected) (*)		D	FA		EU-D 76/769/EEC	Plasticizer	

	Substance	CAS-No.	Classification	Reason code	Application	Source (Legal requirements regulations)	Generic examples	Threshold (0,1% if not stated otherwise)
62	Polybrominated biphenyls (PBB) (*)		P	LR		EU-D 76/769/EEC		0,001% D or P depends on individual substance
63	Polybrominated diphenyl ethers (PBDE) (*) Octabromodiphenyl ether ('Octa') Pentabromodiphenyl ether ('Penta')	32536-52-0	D, except P	FI LR		EU-D 2003/11/EC	Flame Retardant	
		32534-81-9	P	LR				
64	Polybrominated Terphenyls (PBT)		D	FI			Flame retardants in plastics and textiles. Insulation fluid in electrical systems, switch boards transformers and condensers, in wood and paper impregnation, as a softening agent	
65	Polychlorinated Biphenyls (PCB) (*)		P	LR		EU-D 76/769/EEC		0.005%
66	Polychlorinated Naphthalenes (*)		D	FI		Japan (Chemical Substances control Law)	Petrochemical additive	
67	Polychlorinated Terphenyls (PCT) (*)						Insulation fluid in electrical systems, switch boards transformers and condensers, in wood and paper impregnation, as a softening agent	
			P	LR		EU-D 76/769/EEC		0.001%
68	Polycyclic aromatic hydrocarbons (PAH; PCAH) (*)		D	FA		EU-D 67/548/EEC EU-COM 2004/98	Extender oils	1-10 ppm (see individual thresholds)
69	Radioactive substances (including scrap metal contaminants)		D	FI		EU-D 96/29/ Euratom	High intensity discharge lamps	

	Substance	CAS-No.	Classification	Reason code	Application	Source (Legal requirements)	Generic examples	Threshold (0,1% if not stated otherwise)
70	Sodium azide	26628-22-8	D	FI		Pyrotechnical compound	Pyrotechnical compound	
71	Styrene (Vinyl benzene)	100-42-5	D	FI		EU-D 67/548/EEC	Residual monomer in ABS-, Polystyrene-, SMC-, UPE-resin	
72	Styrene oxide (Epoxy styrene)	96-09-3	D	FI		EU-D 67/548/EEC	Residual monomer	
73	Sulfur Hexafluoride	2551-62-4	P	FA		Substance of concern due to global warming potential	Vehicle applications (e.g. tire inflator systems)	
74	Tetrabromobisphenol A (TBBPA)	79-94-7	D	FI		EU risk assessment	Flame retardants in polymers, textiles etc.	
75	Thallium or its compounds (*)		D	FI		EU-D 67/548/EEC	Electric components, sensors	
76	Thioperoxydicarbonic diamide ((H2N)C(S)]2S2), tetramethyl-	137-26-8	D	FI		Japan:(Waste Disposal and Cleaning Law)	Vulcanization accelerator for rubber	
77	Tri(2-chloroethyl)phosphate	115-96-8	D	FI		EU-D 67/548/EEC	Flame retardant	
78	Trichlorophenol or ist salts (*)		D	FI		EU-D 67/548/EEC	Biocide (e.g. preservative for leather and textiles)	
79	Trichloropropane (1,2,3 - Trichloropropane)	96-18-4	D	FI		EU-D 67/548/EEC	As solvent and as trifunctional cross-linking agent e.g. for polysulphide elastomers	
80	Trimethylphosphate	512-56-1	D	FI		(EU-D 76/769/EEC)	Flame retardant	
81	Triorganotin compounds (trialkyl- and triaryltin compounds) (*)		D	FA		EU-D 76/769/EEC EU-D 67/548/EEC	Biocides	

	Substance	CAS-No.	Classification	Reason code	Application	Source (Legal requirements)	Generic examples	Threshold (0,1% if not stated otherwise)
82	Triphenylphosphate	115-86-6	D	FI		Flame retardant under review	Flame retardant	
83	Tris-(1-aziridinyl) phosphine oxide	545-55-1	P	LR		EU-D 83/264/EEC	Flame retardant	
84	Tris(2,3-dibromopropyl)phosphate [TRIS]	126-72-7	P	LR		EU-D 79/663/EEC	Flame retardant	
85	Vinyl chloride	75-01-4	P	LR		EU-D 67/548/EEC	Residual monomer in polymers	Threshold 5ppm vinyl chloride monomer in materials