WHEELPAINTS

Specialist Paints for the Alloy Wheel Industry

Revision Date: 25th May 2019

MATERIAL SAFETY DATA SHEETS

1. Identification of the substance and of the company/undertaking

Product Details:

Product Name: Bright White Powder 58-000-24
Application of the substance/ the preparation: Coating Powder
Supplier: WHEELPAINTS
NN5 5JF
UNITED KINGDOM
Tel: 01604 600585
E-mail: esales@wheelpaints.co.uk
www.wheelpaints.co.uk

2. Identified Uses

Coating powder

Based on use descriptor system given by guideline of the European Chemical Agency

Sector of use	SU 3
Product category	PC9a, PC9b

Further information see chapter Exposure scenario
The product is only for industrial and/or professional use, not for any private consumer use.

3. Hazards Identification

This product is not classified as dangerous according to Regulation (EC) No.1272/2008.

Classification of the substance or mixture

According to Regulation (EC) No 1272/2008
EUH208; EUH210;
Label elements

Labelling according to Regulation (EC) No 1272/2008.
EUH210 Safety data sheet available on request.
EUH208 Contains: benzene-1,2,4-tricarboxylic acid 1,2-anhydride; May produce an allergic reaction.

Other hazards

May form explosible dust-air mixture if dispersed. This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT). This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

Restricted to professional users.

Mixtures

Chemical characterization

Mixture of synthetic resins and pigments

Hazardous components

Substances presenting a health or environmental hazard within the meaning of Regulation (EC) No 1272/2008

CAS 84649-84-3 - N,N-Dimethylalkyl(C12-C14)amine
EC 283-464-9 - REACh no registration number available 0.25 - < 0.3 %
Classification - Acute Tox. 4, H302; Skin Corr. 1B, H314; Aquatic Chronic 1, H410;

CAS 552-30-7 - benzene-1,2,4-tricarboxylic acid 1,2-anhydride
EC 209-008-0 - REACh - 01-2119489422-34 0.1 - < 0.2 %
Classification - Skin Sens. 1, H317; Eye Dam. 1, H318; Resp. Sens. 1, H334; STOT SE 3, H335; SVHC;

Other reporting relevant substances

CAS - not available Coating powder inhalable
EC - REACh - no registration number available 95.00 - < 100.00%
Classification

CAS - not available - Coating powder respirable
EC - REACh - no registration number available 7.00 - < 10.00 %
Classification

Up to the given revision date of this safety data sheet only the above-mentioned REACh registration numbers are assigned to the chemical substances used in this mixture.

4. First Aid Measures

Description of first aid measures

General advice

When symptoms persist or in all cases of doubt seek medical advice. Never give anything by mouth to an unconscious person.

Inhalation

Avoid breathing dust. Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough. Move to fresh air. If breathing is irregular or stopped, administer artificial respiration. If symptoms persist, call a physician.

Skin contact

Do NOT use solvents or thinners. Take off contaminated clothing and shoes immediately. Wash skin thoroughly with soap and water or use recognized skin cleanser. If skin irritation persists, call a physician.

Eye contact

Remove contact lenses. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Seek medical advice.

Ingestion

If swallowed, seek medical advice immediately and show this safety data sheet (SDS) or product label.

Most important symptoms and effects, both acute and delayed

Please see practical experience in section 11.

Indication of any immediate medical attention and special treatment needed

If unconscious place in recovery position and seek medical advice.

5. Fire Fighting Measures

Extinguishing media

Suitable extinguishing media

Water sprayDry chemical

Extinguishing media which shall not be used for safety reasons

High volume water jet

Special hazards arising from the substance or mixture

Hazardous combustion products

Fire will produce dense black smoke containing hazardous combustion products. Exposure to decomposition products may be a hazard to health.

Hazardous decomposition products

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

Advice for firefighters

Fire and Explosion Hazards

The product is not flammable. The product itself does not burn.

Special Protective Equipment and Fire Fighting Procedures

Wear as appropriate: Full protective flameproof clothing. Wear self-contained breathing apparatus for firefighting if necessary.
Do not allow run-off from fire fighting to enter drains or water courses.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition. Air out the room. Do not breathe dust.

Environmental precautions

Do not let product enter drains. Notify the respective authorities in accordance with local law in the case of contamination of rivers, lakes or waste water systems. Please avoid any emission of volatile organic compounds as possible.

Methods and materials for containment and cleaning up

Contain and collect spillage with an electrically protected vacuum cleaner or by wet brushing and place in container for disposal according to local regulations. Do not use a dry brush as dust clouds or static can be created! Use a suitable vacuum cleaner.

Reference to other sections

Comply with safety directives (see chapters 7 and 8).

7. Handling and Storage

Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be
employed in any process in which this mixture is being used. It is recommended that advice is taken from a competent
occupational health practitioner on the assessment of employees with skin or respiratory complaints before the individual is
exposed to the uncured product.

Precautions for safe handling

Safe handling advice

Precautions should be taken to prevent the formation of dusts in concentrations above flammable, explosive or occupational exposure limits. Preparation may charge

electrostatically: always use grounded leads when transferring from one container to another.

Operators should wear antistatic footwear and clothing. Keep away from open flames, hot surfaces and sources of ignition.
Smoking, eating and drinking should be prohibited in the application area.

Electrical equipment and lighting should be protected to appropriate standards to prevent dust meeting hot surfaces, sparks or other ignition sources. For personal protection see section 8. Comply with the health and safety at work laws. If material is a coating, do not sand, flame cut, braze or weld dry coating without an appropriate respirator or appropriate ventilation, and gloves.

Advice on protection against fire and explosion

Always keep in containers of same material as the original one. The accumulation of contaminated rags may result in spontaneous combustion. Good housekeeping standards and regular safe removal of waste materials will minimize the risks of spontaneous combustion and other fire hazards.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Observe label precautions. Refer to Technical Data Sheet (TDS) for further information about storage temperature. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Advice on common storage

Store separately from oxidizing agents and strongly alkaline and strongly acidic materials.

Specific end use(s)

Please see exposure scenarios as given in the annex.

8. Exposure controls and personal protection

Control parameters

DNEL

CAS-No.	Chemical name	End Use	Exposure routes	Frequency of	exposure Type	Value
552-30-7	benzene-1,2,4-tricarboxylic acid	Workers	Dermal	Long-Term	Systemic effects	5 mg/kg/day
	1,2-anhydride	Workers	Inhalative	Long-Term	Systemic effects	2.195 ppm

PNEC

No information available.

Community / national occupational exposure limits

CAS-No.	Chemical name	Source	Time	Type	Value	Note
	Coating powder inhalable				10 mg/m3	
	Coating powder respirable				4 mg/m3	

552-30-7 benzene-1,2,4-tricarboxylic acid 1,2-anhydride STEL 0.12 mg/m3
TWA 0.04 mg/m3

Glossary

IOELV Indicative Occupational Exposure Limit Values
TWA Time weighted average

Exposure controls

Additional technical information on the plant

Do not breathe dust. Provide adequate ventilation. This should be achieved by a good general extraction and -if practically feasible- using a local exhaust ventilation. If these are not enough to maintain exposure to dusts below the OEL, suitable respiratory protection must be worn.

Protective equipment

Personal protective equipment should be worn to prevent contact with eyes, skin or clothing.

Respiratory protection

If dust formation exceeds the air concentration limits, then a respiratory protection device approved for this purpose must be worn.

Hand protection

The selected protective gloves must satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. The breakthrough time of gloves is unknown for the product itself. The glove material given is recommended on basis of the substances in the preparation.

Chemical name	Glove material	Glove thickness	Break through time
	Nitrile rubber	0.33 mm	> 240 min

The protective glove should be checked in each case for their work specific suitability (e.g. mechanical stability, product compatibility, and anti-static properties). After contamination, the glove must be changed. Care should be taken when working with sharp edged articles as these can easily damage the gloves and make them ineffective. The instructions and information provided by the glove supplier on use, storage, maintenance and replacement must be followed. Damaged gloves or those showing signs of wear should be replaced immediately. Preventive skin protection such as skin protective cream is recommended. Work tasks should be arranged in such a way that gloves do not have to be worn continuously.

Eye protection

Eye protection (to EN 166/170) designed to protect against exposure to dusts should be worn when there is a likelihood of exposure.

Skin and body protection

Wear suitable protective clothing. Care should be taken in the selection of protective clothing. Avoid contact with the powder on throat and wrists due to possible inflammation and irritation of the skin.

Hygiene measures

Wash skin thoroughly with soap and water or use recognized skin cleanser. Do not use organic solvents!

Environmental exposure controls

Do not let product enter drains.
For ecological information refer to section 12.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance

Form: solid **Colour:** White **Odour:** Odour is not perceptible.

Important health, safety and environmental information

Property	Value	Method
pH	Not applicable	
Melting point/freezing point	50-1843 C	
Boiling point/boiling range		EN ISO 3679
Flash point	Not applicable.	
Evaporation rate	Not applicable	
Flammability (solid, gas)	No data available	
Lower explosion limit	20 g=m^3	
Upper explosion limit	Not applicable.	

Vapour pressure	Not applicable.	
Vapour density	No data available	
Density	1.71 g=cm^3	20 C - DIN 53217/ISO 2811
Solubility(ies)		
Water solubility	moderate	
Solubility in other solvents	No data available	
Partition coefficient: n-octanol/water	This product is a mixture. For ingredient details see section 12	
Minimum ignition energy	15 - 60 mJ	CEN TC 305
Decomposition temperature	This product is a mixture. For further information see section 10.	
Viscosity (23 C)	solid	
Explosive properties	Not explosive	
Oxidizing properties	not oxidizing	

Other information

Content of volatile components (including water)	0.0 %	Basis Vapour pressure >= 0.01 kPa

10. Stability and Reactivity

Reactivity

Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

Chemical stability

The product is chemically stable.

Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid

Stable under recommended storage and handling conditions (see section 7).

Incompatible materials to avoid

not required under normal use

Hazardous decomposition products

None known

11. Toxicological Information

Information on toxicological effects

General observations

There is no data available on the product. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1272/2008/EC and classified for toxicological hazards accordingly. See sections 2 and 3 for details.

Practical experience

Swallowing may cause nausea, diarrhoea, vomiting and gastro-intestinal irritation.

Acute toxicity

Acute inhalation toxicity

Based on available data, the classification criteria are not met.

Acute dermal toxicity

Based on available data, the classification criteria are not met.

Acute oral toxicity

EINECS-No.	Chemical name	Species	Type	Exposure time	Value	Method
283-464-9	N,N-Dimethylalkyl(C12-C14)amine				ATE 500	

Irritation

Eyes

EINECS-No.	Chemical name	Species	Method	Result
283-464-9	N,N-Dimethylalkyl(C12-C14)amine			corrosive
209-008-0	benzene-1,2,4-tricarboxylic acid 1,2-anhydride			corrosive

Skin

EINECS-No.	Chemical name	Species	Method	Result
283-464-9	N,N-Dimethylalkyl(C12-C14)amine			corrosive

Corrosion

Sensitisation

Respiratory sensitisation

EINECS-No.	Chemical name	Form	Species	Method	Result
209-008-0	benzene-1,2,4-tricarboxylic acid 1,2-anhydride				May cause allergy or asthma symptoms or breathing difficulties

Skin sensitisation

EINECS-No.	Chemical name	Form	Species	Method	Result
209-008-0	benzene-1,2,4-tricarboxylic acid 1,2-anhydride				May cause an allergic skin reaction.

Specific target organ toxicity - single exposure

EINECS-No. - 209-008-0
Chemical name - benzene-1,2,4-tricarboxylic acid 1,2-anhydride
Species
Method
Exposure routes
Form
Value
Exposure time
Target Organs
Result - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Mutagenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

12. Ecological Information

There are no data available on the product itself. The product should not be allowed to enter drains or watercourses. The data in this section is consistent with data from chemical safety reports available at the date of revision.

Toxicity

Aquatic toxicity

Acute and extended toxicity of fishes

EINECS-No.	Chemical name	Species	Type	Exposure time	Value	Method
283-464-9	N,N-Dimethylalkyl (C12-C14)amine	Oncorhynchus mykiss (rainbow trout)	LC50	96 h	h 0.62 mg/l	

Persistence and degradability

No information available.

Bio accumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment

Based on available data no ingredient is classified for this hazard property (please see section 3).

Other adverse effects

The preparation was evaluated in accordance with the conventional method of the preparation directive 1272/2008/EG and it was not classified as dangerous for the environment, but it does contain environmentally dangerous materials. For details, see section 3

Adsorbed organic bound halogens (AOX)

Product does not contain organic linked halogens contributing to AOX.

13. Disposal considerations

Waste treatment methods

Dispose of in accordance with local regulations.

Product

Recommendation:
A disposal process that converts the waste into energy is recommended. Can be landfilled or incinerated, when in compliance with local regulations.

Waste Key Number	Description
080111	waste paint and varnish containing organic solvents or other dangerous substances

Uncleaned packaging

Recommendation:
Empty containers can be landfilled, when in accordance with the local regulations.
Properly emptied composite packaging is to dispose of as commercial waste (waste key-number 150105).

14. Transport Information

Not classified as dangerous in the meaning of transport regulations.

ADR/RID:in accordance with nota 1 of chapter 2.2.3.1.1

IMDG:in accordance with chapter 2.3.1.3

ICAO/IATA:in accordance with chapter 3.3.1.3

UN number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

Not applicable.

Packaging group

Not applicable.

Environmental hazards

ADR/RID; IMDG; ICAO/IATA: none

Marine pollutant

IMDG: no

Transport in bulk according to Annex II of Marpol and the IBC Code

Deliveries shall only be made based on appropriate packaging and in compliance with traffic laws.

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

The product is non-dangerous in accordance with Directive 1999/45/EC.

National legislation

This safety datasheet has been prepared according to British legislation.

The product is labelled according to the Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 as amended (CHIP Regulations). The risk associated with the use of this product must be assessed in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations and the Dangerous Substances and Explosive Atmospheres Regulations.

Restricted to professional users.

Chemical safety assessment

No safety checks were carried out on the mixture.

16. Other Information

Full text of H phrases with no. appearing in section 3

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H410 Very toxic to aquatic life with long lasting effects.
SVHC Substance of very high concern

Information taken from reference works and the literature.
Substance No. - CAS no: http://support.cas.org/content/chemical-substances http://echa.europa.eu/
Substances presenting a health or environmental hazard within the meaning of Directive 67/548/EEC. - http://echa.europa.eu/search-for-chemicals http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB https://www.cdc.gov/niosh/ipcs/
Other directives, limitations and prohibitory Regulations- Regulation (EC) No. 1907/2006 Directive 98/24/EC Directive 2004/37/EC REGULATION (EC) No 1272/2008
EUR-LEX: http://eur-lex.europa.eu/homepage.html
Exposure limit for the pure substance - http://osha.europa.eu/OSHA

Training advice

Regulation (EC) No. 1907/2006
Directive 98/24/EC

Further information

The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions, however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.

Annex - Exposure scenarios

Consolidated exposure assessment for industrial use of coating material

The consolidated exposure assessment provides specific information on how a hazardous substance (in a mixture) is to be managed and controlled. It considers specific conditions of use, in order to ensure that a use is safe to humans and the environment. Compliance

with operational conditions and risk management measures is required if the exposure assessment is annexed to a mandatory safety data sheet. In this case, identified risk management measures are to be implemented unless the downstream user can ensure safe use in a diverging way.

Consolidated exposure assessment (type 1) for application of powder coatings by spraying

Free short title:

Industrial application of powder coating by electrostatic spraying and/or spraying onto hot substrate

Systematic title based on use descriptors:

Sector of use	SU 3
Product category	PC9a, PC9b
Process category	PROC4 (covering PROC2), PROC8a (covering PROC8B), PROC7
Environmental release category	ERC5

Activities covered:

Transferring/loading, spray application, curing of coating material

Contributing scenarios:

PROC4 (covering PROC2)	
PROC8a (covering PROC8b)	Transfer of substance or preparation (charging/discharging)
PROC7	Industrial spraying; Also applicable for: Hot flocking, in-mould coating

Operational conditions and risk management measures
Contributing environmental scenario

Transferring/loading, spray application, curing of coating material

Process conditions:

No transfer to process waste water stream; specific assessment of environmental exposure obsolete

Contributing worker scenarios

Transferring/loading, spray application, curing of coating material

	PROC	DOA	LEV/TRV	RPE	DPE
Transferring	8a (covering 8b)	> 4	hTRV	no	yes level 2
Industrial spraying	7	> 4	hLEV	yes in booth level 2	yes
Industrial flocking	7	> 4	hTRV	no	yes level 2
Curing	(covering 4 2)	> 4	hTRV	no	yes level 2

Further specification:

Above parameters represent standard (default) assumptions according to CEPE mapping of operational conditions Valid information on risk management measures for specific formulation is provided in part 3. Deviation options are explained in part 4 (scaling).

Exposure estimation and reference to its source

Exposure assessment bases on initial scenarios for the used chemicals in this preparation as provided by manufacturers and importers. Identification of a lead substance indicator per route is based on the DPD+ methodology, considering content, dustiness and hazard characteristics. Use of the mixture is considered safe when conditions for safe use of the lead substance indicator are respected. Risk assessment is not applicable if no initial exposure scenarios are available.

Environmental assessment

No relevant ecotoxicological impact expected; specific description and assessment of environmental exposure obsolete;

Worker assessment

Further specification:
Respiratory protection equipment for PROC 7 only applicable for manual application inside a spray-booth Assessment of PROC
4 resp. 2 only relevant in case of substance release in curing process

Guidance to downstream user to evaluate whether he works inside the boundaries set by the exposure scenario
Part 4 is common and is available at the end of the Annex.

Consolidated exposure assessment (type 3) for sanding
Free short title:
Industrial sanding of cured coating
Systematic title based on use descriptors:
Sector of use - SU 3
Product category - PC9a, PC9b
Process category - PROC24
Environmental release category - ERC12a

Activities covered:
Sanding of cured coating
Contributing scenarios:
spERC x4 Wet sanding/wet dust collection in serial production
PROC24 Applicable for: Sanding, grinding, chipping or polishing of cured coating film

Operational conditions and risk management measures
2.1. Contributing environmental scenario
Sanding of cured coating
Process conditions:
Potential transfer to process waste water stream when applying wet sanding techniques or wet dust collection.

	M(sperc)	Transfer to process waste water	Release after on-site WWTP	Municipal STP
spERC x4 (solids)	Solids in dry film	2%	10%	

2.2. Contributing worker scenarios
Sanding of cured coating

	PROC	DOA	LEV/TRV	RPE	DPE
Sanding	24 >	4 h	LEV	no	yes level 2

Further specification:
Above parameters represent standard (default) assumptions according to CEPE mapping of operational conditions Valid information on risk management measures for specific formulation is provided in part 3. Deviation options are explained in part 4 (scaling).

3. Exposure estimation and reference to its source

Exposure assessment bases on initial scenarios for the used chemicals in this preparation as provided by manufacturers and importers. Identification of a lead substance indicator

per route is based on the DPD+ methodology, considering content, dustiness and hazard characteristics. Use of the mixture is considered safe when conditions for safe use of the lead substance indicator is respected. Risk assessment is not applicable if no initial exposure scenarios are available.

3.1. Environmental assessment
Assessment method:
ACEA spERC concept
Potential transfer to process waste water stream when applying wet sanding techniques or wet dust collection

No relevant substance transfer expected to marine water, sediment, or soil due to use in dedicated installations. Environmental assessment only relevant in case of substance transfer into a waste water stream. Environmental assessment based on ACEA sector specific ERC approach (spERC factors for solids and volatiles). The spERC approach is only applicable to demonstrate safe use of a substance for environmental aspects under REACH.
It is not suitable to demonstrate compliance with applicable local waste water regulations. Ingestion (oral route) not assessed as not considered to occur in case of industrial / professional use. Hazards due to particle shape negligible due to inclusion into polymer matrix (silicogenic or similar compounds). Worker exposure assessment based on DNELs is only applicable to demonstrate safe use of substances under REACH.
It is not suitable to demonstrate compliance with applicable occupational exposure limits (as displayed in section 8 of SDS).
Occupational exposure limits may apply for residual monomers (e.g. formaldehyde, monomeric isocyanates) which are not
assessed under REACH. Loss during service life negligible, in any case less than 1 %.
Waste stage not assessed as incineration / biological treatment of waste and safe deposition of inert residues is assumed
Use for coating of toys, articles designed for prolonged skin contact or indirect food contact needs further assessment
No SVHC above declaration threshold contained unless disclosed in section 3 of SDS

Good practice advice

Following advice shall be pursued if exposure assessment in part 3 does not contain sufficient
Information

Recommendation to use technical room ventilation.
Recommendation for respiratory protection equipment due to dust exposure when filling feed system
Advice on respiratory protection equipment for PROC 7 is based on Wheelpaints expert judgement
Advice to use spray-booth or efficient exhaust ventilation.
Advice to wear respiratory protection equipment as standard RMM due to particle exposure for operators inside booth

Advice to wear skin/eye protection as standard RMM for powders classified as irritating (Xi)
Advice to use integrated dust evacuation, in case of air recirculation in accordance to EN 60335.
Recommendation to use respiratory protection equipment when sanding, even in combination with integrated dust evacuation.
Advice to use local exhaust ventilation according to EN 15012 for welding of coated substrates.
Recommendation to avoid contact with water.

Standardised use descriptors according European Chemical Agency (EChA) Guidance on information
requirements and chemical safety assessment, chapter R.12

SU 3 I - Industrial uses: Uses of substances as such or in preparations at industrial sites
PC9a - Coatings and paints, thinners, paint removers
PC9b - Fillers, putties, plasters, modelling clay
PROC2 - Use in closed, continuous process with occasional controlled exposure
PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises
PROC7 - Industrial spraying
PROC8a - Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities
PROC8b - Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities
PROC24 - High (mechanical) energy work-up of substances bound in materials and/ or articles
ERC5 - Industrial use resulting in inclusion into or onto a matrix
ERC12a - Industrial processing of articles with abrasive techniques (low release)

Glossary

SU - Sector of use
PC - Product category
PROC - Process category
ERC - Environmental release category
AC - Article category
spERC - Sector specific environmental release category (for ACEA uses)
ACEA - European automobile manufacturers association
CEPE - European council of producers and importers of paints, printing inks and artists' colours
OC - Operational condition
DOA - Duration of activity
LEV - Local exhaust ventilation
TRV - Technical room ventilation
RMM - Risk Management Measures
RPE - Respiratory protection equipment
DPE - Dermal protection equipment

WWTP - Waste water treatment plant (on-site)
STP - Sewage treatment plant (municipal)
SVHC - Substance of very high concern
LSI - Lead substance indicator
M(sperc) - Maximum volume of lead substance which can be used safely under conditions described
by CEPE spERC
DNEL - Derived No Effect Level
DMEL - Derived minimum effect level
PNEC - Predicted No Effect Concentration
ECETOC TRA - Targeted risk assessment as proposed by European center for ecotoxicology and toxicology
of chemicals
RCR - Risk characterisation ratio
c