1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information

Trade name : SIGMACOVER 456 HS (SIGMA CM/HS COATING/SIGMACOVER CM/HS COATING) BASE BUFF

Recommended use : solvent based, two component coating base

Company : SigmaKalon Belgium N.V.
Tweemontstraat 104
2100 Deurne-Antwerpen

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	EC No.	CAS-No.	DSD	Note	Classification	Concentration
xylene	215-535-7	1330-20-7	25th	Nota C	R10 Xn; R20/21 Xi; R38	>10.00 - <=25.00%
iso-butanol	201-148-0	78-83-1	25th		R67 R10 Xi; R37/38, R41	>0.00 - <=2.50%
ethylbenzene	202-849-4	100-41-4	19th		F; R11 Xn; R20	>2.50 - <=10.00%
epoxy resin (MW <=700)		25068-38-6	29th		Xi; R36/38 R43 N; R51, R53	>2.50 - <=10.00%
1-methoxy-2-propanol	203-539-1	107-98-2	19th		R10	>0.00 - <=2.50%
Trizinc bis(orthophosphate)	231-944-3	7779-90-0	29th		N; R50, R53	>2.50 - <=10.00%
ethoxyl trimethylol propane triacrylate		28961-43-5			Xi; R36	>2.50 - <=10.00%
amide wax					Xn; R20 R53	>0.00 - <=2.50%
epoxy resin (700 < MW <1000)		25068-38-6			Xi; R36/38 R43	>2.50 - <=10.00%

If multiple components with identical identifiers appear, these have different hazardous properties, e.g. flashpoint.

3. HAZARDS IDENTIFICATION

Hazardous components :
epoxy resin (MW <=700)

R-phrase(s) :
FLAMMABLE.
HARMFUL BY INHALATION.
IRRITATING TO EYES AND SKIN.
MAY CAUSE SENSITIZATION BY SKIN CONTACT.
TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

P-phrase(s) :
Contains epoxy constituents. See information supplied by the manufacturer.

4. 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.
Eye contact	:	Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. Remove contact lenses. Seek medical advice.
Skin contact	:	Take off all contaminated clothing immediately. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
Inhalation	:	Remove to fresh air. Keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek medical advice.
Ingestion	:	If accidently swallowed obtain immediate medical attention. Keep at rest. Do not induce vomiting.
Burns	:	If spills on clothing catch fire, wash with plenty of water. Remove loose clothing. Do not remove clothing that has melted to the skin.Obtain medical attention.

5. FIRE-FIGHTING MEASURES

Specific hazards during fire fighting	:	As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Exposure to decomposition products may be a hazard to health. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.
Special protective equipment for fire-fighters	:	In the event of fire, wear self-contained breathing apparatus.
Suitable extinguishing media	:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Keep containers and surroundings cool with water spray.
Extinguishing media which must not be used for safety reasons	:	Do NOT use water jet.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Use personal protective equipment. Ventilate the area. Refer to protective measures listed in sections 7 and 8. Wear respiratory protection. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Remove all sources of ignition.

Environmental precautions : Try to prevent the material from entering drains or water ways. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up : Clean with detergents. Avoid solvents. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Additional advice : Refer to section 15 for specific national regulation.

7. HANDLING AND STORAGE

Handling

Safe handling advice : Avoid exceeding of the given occupational exposure limits (see section 8). Use only in area provided with appropriate exhaust ventilation. Avoid contact with skin, eyes and clothing. Smoking, eating and drinking should be prohibited in the application area. Avoid inhalation of vapour or mist. For personal protection see section 8.

Advice on protection against fire and explosion : Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. When transferring from one container to another apply earthing measures and use conductive hose material. No sparking tools should be used. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. No smoking. The accumulation of contaminated rags and dry overspray, particularly in spray booth filters, may result in spontaneous combustion. Good housekeeping standards, regular safe removal of waste materials and regular maintenance of spray booth filters will minimise the risks of spontaneous combustion and other fire hazards.

Storage

Requirements for storage areas and containers : Observe label precautions. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store between 5 and 25°C (41 - 77 F) in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. Solvent vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Electrical installations / working materials must comply with the technological safety standards. Keep away from sources of ignition - No smoking. Store in accordance with the particular national regulations (see section 15).

Advice on common storage : Keep away from oxidising agents and strongly acid or alkaline materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Minimum ventilated air quantity for 1 liter of product

TO REACH 10 % LEL : 63 m3/l

Components on the national list and/or the European TLV list (98/24/EC):

Components	CAS-No.	Value [mg/m^3]	Value [ppm]	Basis
xylene *can be absorbed through skin*	1330-20-7	221 442	50 100	EU ELV TWA EU ELV STEL
ethylbenzene *can be absorbed through skin*	100-41-4	442 884	100 200	EU ELV TWA EU ELV STEL
1-methoxy-2-propanol *can be absorbed through skin*	107-98-2	375 568	100 150	EU ELV TWA EU ELV STEL
xylene *can be absorbed through skin*	1330-20-7	221 442	50 100	EU ELV TWA EU ELV STEL
ethylbenzene *can be absorbed through skin*	100-41-4	442 884	100 200	EU ELV TWA EU ELV STEL
1-methoxy-2-propanol *can be absorbed through skin*	107-98-2	375 568	100 150	EU ELV TWA EU ELV STEL

Personal protective equipment

General advice

Respiratory protection : When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikly to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

Hand protection : For prolonged or repeated contact use protective gloves.
Barrier creams may help to protect the exposed areas of skin, they should however not be applied once exposure has occurred.
Skin should be washed after contact.
Use chemical resistant gloves classified under Standard EN 374: Protective gloves against chemicals and micro-organisms.

Recommended gloves: Viton
Minimum breakthrough time: 480 min

The recommended gloves are based on most common solvent in this product.

When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended.
NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled,physicalrequirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glovematerials, as wellas the instructions/specifications provided by the glove supplier.

Eye protection : Chemical resistant goggles must be worn.

Skin and body protection	:	Personnel should wear protective clothing. Skin should be washed after contact. Working clothes must not consist of textiles, which show a dangerous melting behaviour in case of fire. Workers should wear antistatic footwear.
Additional advice		
Environmental protection	:	Refer to national regulations in chapter 15 for regulations on environmental protection.
Personal protection		
Protective equipment	:	Enclosing glasses, safety gloves and P2A2 half-face combi mask

Please contact your personal protection equipment supplier for further advice

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	:	viscous
Colour	:	various
Odour	:	mild aromatic
Flash point	:	42.0 °C
Autoignition temperature	:	> 430 °C
Upper explosion limit	:	7.54 %(V)
Lower explosion limit	:	1.06 %(V)
Density	:	1.57 g/cm3 at 20 °C
Water solubility	:	immiscible
pH	:	
Viscosity, dynamic	:	1,400 mPa.s at 23 °C
Flow time	:	>= 60 s Transversal section: 6 mm Method: ISO 2431 (EN 535) 6 mm CUP

10. STABILITY AND REACTIVITY

Conditions to avoid	:	Avoid temperatures above 60°C (140 F), direct sunlight and contact with sources of heat.
Hazardous reactions	:	Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
Hazardous decomposition products	:	In case of fire hazardous decomposition products may be produced such as: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	:	May cause nausea, abdominal spasms and irritation of the mucous membranes.
Acute inhalation toxicity	:	Exposure to component solvent vapours concentration in excess of the stated occupational exposure limit may result in adverse health effects. Such as: mucous membrane irritation, respiratory system irritation, adverse effects on kidney, liver and central nervous system. Symptoms and signs: headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases loss of consciousness.

Skin irritation : Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in desiccation of the skin. The product may be absorbed through the skin. Repeated skin contact may lead to irritation and to senitization, possible with cross-sensitization to other epoxies.

Eye contact : Irritating to eyes.

Further information : There is no data available for this product.

Acute Toxicity Data for Components

Trizinc bis(orthophosphate)(7779-90-0)

Acute oral toxicity : LD50: 552 mg/kg (mouse)

12. ECOLOGICAL INFORMATION

Further information : The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for ecotoxicological properties accordingly. See sections 2 and 15 for details.

13. DISPOSAL CONSIDERATIONS

Product : The product should not be allowed to enter drains, water courses or the soil. Disposal together with normal waste is not allowed. Special disposal required according to local regulations.

Waste key for the unused product : The European Waste Catalogue classification of this product, when disposed of as waste is:
08 01 11 Waste paint and varnish containing organic solvents or other dangerous substances.

If this product is fully cured or mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned. For further information contact your local waste authority

14. TRANSPORT INFORMATION

Transport within user's premises: always transport in closed containers that are upright, labelled and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport to be in accordance with ADR for road, IMDG for sea and IATA for air transport:

UN-No	:	1263
Proper shipping name	:	PAINT
Class	:	3
Packing group	:	III
Label	:	3
Proper shipping name (ADR)	:	PAINT

Marine Pollutant (IMDG)(P,PP,-)	:	-
EmS (IMDG)	:	F-E, S-E
Limited quantity (ADR)	:	Max. per inner pack. : 5.00 L Max. per outer pack. : 30.00 KG
Limited quantity (IMDG)	:	Max. per inner pack. : 5.00 L

Max. per outer pack. : 30.00 KG

Note

If pack sizes less than 450L, under the terms of 2.2.3.1.5, this product is not subject to the provisions of ADR.

If pack sizes up to and including 30L, under the terms of 2.3.2.5, this product is not subject to the packaging, labelling and marking requirements of the IMDG code, but both full documentation and placarding of cargo transport units is still required.

15. REGULATORY INFORMATION

The product is classified and labelled in accordance with Directive 1999/45/EC.

Harmful

Dangerous for the environment

Hazardous components which must be listed on the label:

- epoxy resin (MW <=700)

R-phrase(s)	:	R10	Flammable.
		R20	Harmful by inhalation.
		R36/38	Irritating to eyes and skin.
		R43	May cause sensitization by skin contact.
		R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)	:	S23	Do not breathe spray.
		S36/37	Wear suitable protective clothing and gloves.
		S38	In case of insufficient ventilation, wear suitable respiratory equipment.
		S61	Avoid release to the environment. Refer to special instructions/safety data sheets.
P-phrase(s)	:		Contains epoxy constituents. See information supplied by the manufacturer.

The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

National legislation

16. OTHER INFORMATION

Explanation of R-phrases mentioned in section 2

xylene	R10	Flammable.
	R20/21	Harmful by inhalation and in contact with skin.
	R38	Irritating to skin.
iso-butanol	R10	Flammable.
	R37/38	Irritating to respiratory system and skin.
	R41	Risk of serious damage to eyes.
	R67	Vapours may cause drowsiness and dizziness.
ethylbenzene	R11	Highly flammable.
	R20	Harmful by inhalation.
epoxy resin (MW <=700)	R36/38	Irritating to eyes and skin.
	R43	May cause sensitization by skin contact.
	R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
1-methoxy-2-propanol	R10	Flammable.
Trizinc bis(orthophosphate)	R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
ethoxyl trimethylol propane triacrylate	R36	Irritating to eyes.
amide wax	R20	Harmful by inhalation.
	R53	May cause long-term adverse effects in the aquatic environment.
epoxy resin (700 < MW <1000)	R43	May cause sensitization by skin contact.
	R36/38	Irritating to eyes and skin.

Version: 1 Revision date 17.03.2007

The information contained in this safety data sheet is based on the present state of knowledge and current European and National legislation at the date of issue. The supplier reserves the right to modify data on the safety data sheet without further notice. Any change in data will normally be followed by the issue of a new safety data sheet. The user should check the date of issue and if more than 12 months have elapsed, then the data should only be used after checking with the nearest sales office of the supplier to establish that the data is still valid. As the specific conditions of use of the product are outside the suppliers control, the supplier is not reponsible for the (negative) consequences of these specific conditions of use, which are outside of the suppliers. control and which are not compliant with the handling, storage and other instructions in this safety data sheet.
After all component(s) stated on the relevant Technical Data Sheet have been mixed the safety precautions mentioned on each of the component(s) safety data sheets and labels should be used in assessing the safety precautions of the mixed product.
For further information see technical data sheet number: 7712