Version 1

Print Date Dec 2002

SIGMA COATINGS

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

Trade name		0616 SIGMAZAM FINISH SEMI GLOSS
Company	:	Sigma Paints Saudi Arabia Ltd PO Box 7509 Dammam 31472
Telephone	:	9663 8473100
Telefax	:	9663 8471734
Emergency telephone number	:	+9663 8572394

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Symbol(s):	R-phrase(s)	Concentration
TOLUENE	108-88-3	F, Xn	R11, R20	2.50 - 10.00%
XYLENE	1330-20-7	Xn	R10, R20/21,	10.00 - 25.00%
			R38	
ETHYL BENZENE	100-41-4	F, Xn	R11, R20	2.50 - 10.00%
LEAD COMPOUNDS WITH THE EXCEPTION	68603-83-8	T, N	R61, R20/22,	0.00 - 2.50%
OF THOSE SPECIFIED ELSEWHERE IN THIS			R33, R50/53,	
ANNEX			R62	

3. HAZARDS IDENTIFICATION



Hazardous components : XYLENE

R-phrase(s) : FLAMMABLE. HARMFUL BY INHALATION AND IN CONTACT WITH SKIN.

S-phrase(s) : Do not breathe spray.Wear suitable protective clothing and gloves.In case of insufficient ventilation, wear suitable respiratory equipment.

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.
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Ingestion	:	If accidently swallowed obtain immediate medical attention. Keep at rest. Do not induce vomiting.
5. FIRE-FIGHTING MEASURES		

Specific hazards during fire : As the product contains cumbustible organic components, fire will produce fighting 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 In the event of fire, wear self-contained breathing apparatus. : for fire-fighters 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 Do NOT use water jet. : must not be used for safety reasons

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 courses. 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, diatomaceus 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

: 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.
 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. 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.

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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 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 technocological 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 : 83 m3/l

Components with workplace control parameters

Components	CAS-No.	Value [mg/m ³]	Value [ppm]	Basis
TOLUENE	108-88-3	150.00	40.00	MAC (NL) MAC TGG
XYLENE can be absorbed through skincan be absorbed through skin	1330-20-7	210.00 221.00 221.00	50.00 50.00 100.00	MAC (NL) MAC TGG EU ELV TWA EU ELV STEL
ETHYL BENZENE can be absorbed through skincan be absorbed through skin	100-41-4	215.00 442.00 442.00	50.00 100.00 200.00	MAC (NL) MAC TGG EU ELV TWA EU ELV STEL
CALCIUM CARBONATE	1317-65-3	10.00		MAC (NL) MAC TGG
MAGNESIUM SILICATE	14807-96-6	2.00		MAC (NL) MAC TGG

Personal protective equipment

Personal protection advice	: 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.
Respiratory protection	: Apply technical measures to comply with the occupational exposure limits. This should be achieved by a good general extraction and "if practically feasible" by the use of local exhaust ventilation. If the occupational exposure limits cannot be met, in exceptional cases suitable respiratory equipment should be worn only for a short period of time.
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.
Eye protection	: Chemical resistant goggles must be worn.

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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.
PHYSICAL AND CHEMICAL P	ROPE	RTIES
Form	:	viscous
Colour	:	various
Odour	:	mild aromatic
Flash point	:	25 °C
Autoignition temperature	:	>480 °C
Lower explosion limit	:	1.03 %(V)
Density	:	1.3 - 1.6 g/cm3
Water solubility	:	immiscible
Viscosity, dynamic	:	800 mPa.s at 23 °C
Conditions to avoid	:	Avoid temperatures above 60°C, direct sunlight and contact with sources of
Conditions to avoid Hazardous reactions	:	heat. Keep away from oxidising agents, strongly alkaline and strongly acid
	:	heat.
Hazardous reactions Hazardous decomposition products	: : : [ION	heat. Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. In case of fire hazardous decomposition products may be produced such as: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx),
Hazardous reactions Hazardous decomposition	: : : [ION :	heat. Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. 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. May cause nausea, abdominal spasms and irritation of the mucous
Hazardous reactions Hazardous decomposition products TOXICOLOGICAL INFORMAT	: : fion :	heat. Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. 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.
Hazardous reactions Hazardous decomposition products TOXICOLOGICAL INFORMAT Acute oral toxicity	: : fion : :	heat. Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. 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. May cause nausea, abdominal spasms and irritation of the mucous membranes. 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
Hazardous reactions Hazardous decomposition products TOXICOLOGICAL INFORMAT Acute oral toxicity Acute inhalation toxicity	: : fion : : :	heat. Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. 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. May cause nausea, abdominal spasms and irritation of the mucous membranes. 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. 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
Hazardous reactions Hazardous decomposition products TOXICOLOGICAL INFORMAT Acute oral toxicity Acute inhalation toxicity Skin irritation Eye contact	:	heat. Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. 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. May cause nausea, abdominal spasms and irritation of the mucous membranes. 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. 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. The liquid splashed in the eyes may cause irritation and reversible damage.

	ATA SHEET according to EC directive 93/112/EC
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. DISPOSAL CO	ONSIDERATIONS
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.
. TRANSPORT	INFORMATION
ADR	 Class: 3 / 31c UN-No: 1263 ADR/RID-Labels: 3 Limited Quantities: Max. per inner pack.: 5.00 L - Max. per outer pack.: 45.00 L Proper shipping name : PAINT
IMDG	: Class : 3.3 UN-No : 1263 IMDG labels : 3 EmS : 3-05 MFAG : 310 IMDG Page : 3372 Packaging group : III Proper shipping name : PAINT
IATA_C	: Class : 3, Sub-risks : UN-No : 1263 Packaging group : III
	Proper shipping name : PAINT
Note	Proper shipping name : PAINTADR : Packagings smaller or equal to 450 l, transport according to section E of marginal 2301.
	: ADR : Packagings smaller or equal to 450 l, transport according to section E of marginal 2301.
. REGULATOR Remarks	 ADR : Packagings smaller or equal to 450 l, transport according to section E of marginal 2301. Y INFORMATION A hard copy of the label is placed in section 3 omponents which must be listed on the label:
. REGULATOR <i>Remarks</i> Hazardous co	 ADR : Packagings smaller or equal to 450 l, transport according to section E of marginal 2301. Y INFORMATION A hard copy of the label is placed in section 3 pomponents which must be listed on the label:
. REGULATOR <i>Remarks</i> Hazardous co • XYLE	 ADR : Packagings smaller or equal to 450 l, transport according to section E of marginal 2301. Y INFORMATION A hard copy of the label is placed in section 3 Omponents which must be listed on the label: ENE
. REGULATOR <i>Remarks</i> Hazardous co • XYLE Symbol(s):	 ADR : Packagings smaller or equal to 450 l, transport according to section E of marginal 2301. Y INFORMATION A hard copy of the label is placed in section 3 Omponents which must be listed on the label: ENE Xn Harmful R10 Flammable.
. REGULATOR <i>Remarks</i> Hazardous co • XYLE Symbol(s): R-phrase(s)	 ADR : Packagings smaller or equal to 450 l, transport according to section E of marginal 2301. Y INFORMATION A hard copy of the label is placed in section 3 pmponents which must be listed on the label: ENE
. REGULATOR <i>Remarks</i> Hazardous co • XYLE Symbol(s): R-phrase(s) S-phrase(s)	 ADR : Packagings smaller or equal to 450 l, transport according to section E of marginal 2301. Y INFORMATION A hard copy of the label is placed in section 3 mponents which must be listed on the label: ENE Xn Harmful R10 Flammable. R20/21 Harmful by inhalation and in contact with skin. \$23 Do not breathe spray. \$36/37 Wear suitable protective clothing and gloves. \$38 In case of insufficient ventilation, wear suitable respiratory equipment.

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CPR Classification	:	K3 Xn
NER Classification	:	NER Class O.1: 0.0 %(m) NER Class O.2: 25.1 %(m) NER Class O.3: 0.6 %(m)

16. OTHER INFORMATION

Explanation of R-phrases mentioned in section 2

TOLUENE	R11 R20	Highly flammable. Harmful by inhalation.
XYLENE	R10 R20/21 R38	Flammable. Harmful by inhalation and in contact with skin. Irritating to skin.
ETHYL BENZENE	R11 R20	Highly flammable. Harmful by inhalation.
LEAD COMPOUNDS WITH THE EXCEPTION OF THOSE SPECIFIED ELSEWHERE IN THIS ANNEX	R61 R20/22 R33 R50/53 R62	May cause harm to the unborn child. Harmful by inhalation and if swallowed. Danger of cumulative effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible risk of impaired fertility.

Changes since the last version will be highlighted in the margin. This version replaces all previous versions.

The information contained in this safety data sheet is based on the present state of knowledge and current national legislation at the date of issue. The company reserves the right to modify data without notice. Any change in data will normally be followed by 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 our nearest sales office to establish that they are still valid. As the specific conditions of use of the product are outside the suppliers control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. None of the information contained in this safety data sheet can be constructed as a guarantee with regard to the properties of the product described. No liability can be accepted on the basis of 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: 0616