Safety Data Sheet

According to U.S.A. Federal Hazcom 2012

1. Identification

1.1. Product identifier

Code: **PGSM340120A**
Product name **SMALTO A 3401 Op.20 BIANCO**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified Uses	Industrial	Professional	Consumer
Paint product	✓	-	-

1.3. Details of the supplier of the safety data sheet

Name **ICRO COATINGS S.p.A.**
Full address **Via Bedeschi, 25**
District and Country **24040 Chignolo D'Isola (BG)**
Italia
Tel. +39 035 999711
Fax +39 035 999712
e-mail address of the competent person responsible for the Safety Data Sheet **gianluca.cerina@icro.it**

Supplier: **ICRO COATINGS S.p.A. con Socio Unico - Via Bedeschi 25 - 24040 Chignolo d'Isola (BG) - Italy**

1.4. Emergency telephone number

For urgent inquiries refer to **#####**

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Flammable liquid, category 2	Highly flammable liquid and vapour.
Carcinogenicity, category 1A	May cause cancer.
Reproductive toxicity, category 2	Suspected of damaging fertility or the unborn child.
Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1A	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H350	May cause cancer.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:

2. Hazards identification ... / >>

Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust / fume / gas / mist / vapours / spray.
P202	Do not handle until all safety precautions have been read and understood.
P242	Use only non-sparking tools.
P201	Obtain special instructions before use.
P233	Keep container tightly closed.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P264	Wash thoroughly with water after use.
P240	Ground / bond container and receiving equipment.
P243	Take precautionary measures against static discharge.
P241	Use explosion-proof electrical / ventilation / lighting systems.
P272	Contaminated work clothing should not be allowed out of the workplace.

Response:

P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
P308+P313	IF exposed or concerned: Get medical advice / attention.
P314	Get medical advice / attention if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P302+P352	IN CASE OF CONTACT WITH SKIN: wash with plenty of water.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: use powder to extinguish.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Disposal:

P501	Dispose of the product / container in accordance with current legislation

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification		**x = Conc. %**	**Classification:**
TITANIUM DIOXIDE			
CAS	*13463-67-7*	30 ≤ x < 35	**Carcinogenicity, category 2 H351**
EC	*236-675-5*		
INDEX			
XYLENE (MIXTURE OF ISOMERS)			
CAS	*1330-20-7*	20 ≤ x < 25	**Flammable liquid, category 3 H226, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin irritation, category 2 H315**
EC	*215-535-7*		
INDEX	*601-022-00-9*		
N-BUTYL ACETATE			
CAS	*123-86-4*	5 ≤ x < 7.5	**Flammable liquid, category 3 H226, Specific target organ toxicity - single exposure, category 3 H336**
EC	*204-658-1*		
INDEX	*607-025-00-1*		
ETHYLBENZENE			
CAS	*100-41-4*	4 ≤ x < 5	**Flammable liquid, category 2 H225, Acute toxicity, category 4 H332, Aspiration hazard, category 1 H304, Specific target organ toxicity - repeated exposure, category 2 H373**
EC	*202-849-4*		
INDEX	*601-023-00-4*		
4-HYDROXY-4-METHYLPENTAN-2-ONE			
CAS	*123-42-2*	0.1 ≤ x < 1	**Flammable liquid, category 3 H226, Eye irritation, category 2 H319**
EC	*204-626-7*		
INDEX	*603-016-00-1*		
POLYETHYLENE			
CAS		0.1 ≤ x < 1	
EC	*919-748-2*		
INDEX			

3. Composition/information on ingredients ... / >>

ISOBUTYL METHYL KETONE			
CAS	*108-10-1*	0.1 ≤ x < 1	**Flammable liquid, category 2 H225, Carcinogenicity, category 2 H351, Acute toxicity, category 4 H332, Eye irritation, category 2 H319, Specific target organ toxicity - single exposure, category 3 H336**
EC	*203-550-1*		
INDEX	*606-004-00-4*		
ETHANOL			
CAS	*64-17-5*	0.1 ≤ x < 1	**Flammable liquid, category 2 H225, Carcinogenicity, category 1A H350**
EC	*200-578-6*		
INDEX	*603-002-00-5*		
2,2-Dihydroxymethyl butanol			
CAS	*77-99-6*	0.1 ≤ x < 1	**Reproductive toxicity, category 2 H361**
EC	*201-074-9*		
INDEX			
METHANOL			
CAS	*67-56-1*	0 ≤ x < 0.1	**Flammable liquid, category 2 H225, Acute toxicity, category 3 H301, Acute toxicity, category 3 H311, Acute toxicity, category 3 H331, Specific target organ toxicity - single exposure, category 1 H370**
EC	*200-659-6*		
INDEX	*603-001-00-X*		
2,6-DIMETHYLHEPTAN-4-ONE			
CAS	*108-83-8*	0 ≤ x < 0.1	**Flammable liquid, category 3 H226, Specific target organ toxicity - single exposure, category 3 H335**
EC	*203-620-1*		
INDEX	*606-005-00-X*		
QUARTZ (SIO2)			
CAS	*14808-60-7*	0 ≤ x < 0.1	**Substance with a community workplace exposure limit.**
EC	*238-878-4*		
INDEX			
PROPAN-2-OL			
CAS	*67-63-0*	0 ≤ x < 0.1	**Flammable liquid, category 2 H225, Eye irritation, category 2 H319, Specific target organ toxicity - single exposure, category 3 H336**
EC	*200-661-7*		
INDEX	*603-117-00-0*		
MALEIC ANHYDRIDE			
CAS	*108-31-6*	0.001 ≤ x < 0.1	**Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 1 H372, Skin corrosion, category 1B H314, Serious eye damage, category 1 H318, Respiratory sensitization, category 1 H334, Skin sensitization, category 1A H317**
EC	*203-571-6*		
INDEX	*607-096-00-9*		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7. Handling and storage ... / >>

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2021

QUARTZ (SIO2)

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	0.025				
OEL	EU	0.1				
OSHA	USA	30				INHAL
OSHA	USA	10				RESP
CAL/OSHA	USA	0.3				INHAL
CAL/OSHA	USA	0.1				RESP
NIOSH	USA	0.05				

POLYETHYLENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	10				

XYLENE (MIXTURE OF ISOMERS)

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	434	100	651	150	
OEL	EU	221	50	442	100	SKIN
OSHA	USA	435	100			
CAL/OSHA	USA	435	100	655 (C)	3000 (C)	

TITANIUM DIOXIDE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	10				
OSHA	USA	15				INHAL
CAL/OSHA	USA	10				INHAL
CAL/OSHA	USA	5				RESP

2-METHOXY-1-METHYLETHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	275	50	550	100	SKIN
CAL/OSHA	USA	541	100	811	150	SKIN

8. Exposure controls/personal protection ... / >>

ETHYLBENZENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	87	20			
OEL	EU	442	100	884	200	SKIN
OSHA	USA	435	100			
CAL/OSHA	USA	22	5	130	30	
NIOSH	USA	435	100	545	125	

METHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	262	200	328	250	SKIN
OEL	EU	260	200			
OSHA	USA	260	200			
CAL/OSHA	USA	260	200	325 (C)	1000 (C)	SKIN
NIOSH	USA	260	200	325	250	SKIN

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-			1884	1000	
OSHA	USA	1900	1000			
CAL/OSHA	USA	1.9	1			
NIOSH	USA	1900	1000			

4-HYDROXY-4-METHYLPENTAN-2-ONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	238	50			
OSHA	USA	240	50			
CAL/OSHA	USA	240	50			
NIOSH	USA	240	50			

PROPAN-2-OL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	492	200	983	400	
OSHA	USA	980	400			
CAL/OSHA	USA	980	400	1225	500	
NIOSH	USA	980	400	1225	500	

ISOBUTYL METHYL KETONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	82	20	307	75	
OEL	EU	83	20	208	50	
OSHA	USA	410	100			
CAL/OSHA	USA	205	50	300	75	
NIOSH	USA	205	50	300	75	

8. Exposure controls/personal protection ... / >>

2,6-DIMETHYLHEPTAN-4-ONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	145	25			
OSHA	USA	290	50			
CAL/OSHA	USA	150	25			
NIOSH	USA	150	25			

N-BUTYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-		50		150	
OEL	EU	241	50	723	150	
OSHA	USA	710	150			
CAL/OSHA	USA	710	150	950	200	
NIOSH	USA	710	150	950	200	

MALEIC ANHYDRIDE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	0.01	0.0025			INHAL
OSHA	USA	1	0.25			
CAL/OSHA	USA	0.4	0.1			
NIOSH	USA	1	0.25			

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear. Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84, OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	white	
Odour	aromatic	

9. Physical and chemical properties ... / >>

Odour threshold	Not applicable				
pH	Not applicable				
Melting point / freezing point	Not applicable				
Initial boiling point	137	°C	(278,6 °F)		
Boiling range	Not applicable				
Flash point	17	°C		(62,6 °F)	
Evaporation rate	Not determined				
Flammability (solid, gas)	not applicable				
Lower inflammability limit	1.1	% (V/V)	20	°C	
Upper inflammability limit	7.6	% (V/V)	20	°C	
Lower explosive limit	1.1	% (V/V)	20	°C	Temperature: 20 °C
Upper explosive limit	7.6	% (V/V)	20	°C	Temperature: 20 °C
Vapour pressure	Not determined				
Vapour density	3.6				
Relative density	1.3	g/cm3			Temperature: 20 °C
Solubility	soluble in organic solvents				
Partition coefficient: n-octanol/water	Not applicable				
Auto-ignition temperature	464	°C			
Decomposition temperature	Not applicable				
Viscosity	170" - 190"Ford N.4.				
Explosive properties	not applicable				
Oxidising properties	not applicable				

9.2. Other information

Total solids	63,50 %

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

4-HYDROXY-4-METHYLPENTAN-2-ONE
Decomposes at temperatures above 90°C/194°F.
ISOBUTYL METHYL KETONE
Reacts violently with: light metals.Attacks various types of plastic materials.
N-BUTYL ACETATE
Decomposes on contact with: water.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

XYLENE (MIXTURE OF ISOMERS)
Stable in normal conditions of use and storage.Reacts violently with: strong oxidants,strong acids,nitric acid,perchlorates.May form explosive mixtures with: air.
ETHYLBENZENE
Reacts violently with: strong oxidants.Attacks various types of plastic materials.May form explosive mixtures with: air.
ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.
4-HYDROXY-4-METHYLPENTAN-2-ONE
Risk of explosion on contact with: air,sources of heat.May react dangerously with: alkaline metals,amines,oxidising agents,acids.
ISOBUTYL METHYL KETONE
May react violently with: oxidising agents.Forms peroxides with: air.Forms explosive mixtures with: hot air.
N-BUTYL ACETATE
Risk of explosion on contact with: strong oxidising agents.May react dangerously with: alkaline hydroxides,potassium tert-butoxide.Forms explosive mixtures with: air.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL

10. Stability and reactivity ... / >>

Avoid exposure to: sources of heat,naked flames.
4-HYDROXY-4-METHYLPENTAN-2-ONE
Avoid exposure to: light,sources of heat,naked flames.
ISOBUTYL METHYL KETONE
Avoid exposure to: sources of heat.
N-BUTYL ACETATE
Avoid exposure to: moisture,sources of heat,naked flames.

10.5. Incompatible materials

ISOBUTYL METHYL KETONE
Incompatible with: oxidising substances,reducing substances.
N-BUTYL ACETATE
Incompatible with: water,nitrates,strong oxidants,acids,alkalis,zinc.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

ETHYLBENZENE
May develop: methane,styrene,hydrogen,ethane.

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

XYLENE (MIXTURE OF ISOMERS)
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; inhalation of ambient air.

ETHYLBENZENE
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; contact with the skin of products containing the substance.

METHANOL
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; contact with the skin of products containing the substance.

4-HYDROXY-4-METHYLPENTAN-2-ONE
WORKERS: inhalation; contact with the skin.

N-BUTYL ACETATE
WORKERS: inhalation; contact with the skin.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

XYLENE (MIXTURE OF ISOMERS)
Toxic effect on the central nervous system (encephalopathy); irritating for the skin, conjunctiva, cornea and respiratory apparatus.

ETHYLBENZENE
As the counterparts of benzene, may have an acute effect on the central nervous system, with depression, narcosis, often preceded by dizziness and associated with headache (Ispesl). Is irritating for skin, conjunctiva and respiratory tract.

METHANOL
The minimum lethal dose for humans by ingestion is considered to be in the range from 300 to 1000 mg/kg. Ingestion of 4-10 ml of the substance may cause permanent blindness in adult humans (IPCS).

4-HYDROXY-4-METHYLPENTAN-2-ONE
Acute toxicity causes irritation of the eyes, nose and throat in humans at 100 ppm (476 mg/kg) and pulmonary disorders at 400 ppm. No chronic effects on humans have been reported. The substance may have a depressive effect on the respiratory centres and cause death from respiratory failure.

11. Toxicological information ... / >>

N-BUTYL ACETATE
In humans, the substance's vapours cause irritation of the eyes and nose. In the event of repeated exposure, skin irritation, dermatitis (dryness and cracking of the skin) and keratitis appear.

Interactive effects

XYLENE (MIXTURE OF ISOMERS)
Intake of alcohol interferes with the metabolism of the substance, inhibiting it. Ethanol consumption (0.8 g/kg) before a 4-hour exposure to xylene vapours (145 and 280 ppm) causes a 50% reduction in the excretion of methyl hippuric acid, whereas the concentration of xylenes in the blood increases approx. 1.5-2 times. At the same time there is an increase in the secondary side effects of the ethanol. The metabolism of the xylenes is increased by phenobarbital and 3-methyl-colantrene type enzyme inducers. Aspirin and xylenes mutually inhibit their conjugation with the glycine, which results in a decrease in urinary excretion of methyl hippuric acid. Other industrial products can interfere with the metabolism of xylenes.

N-BUTYL ACETATE
A case of acute intoxication been reported involving a 33 year old worker while cleaning a tank with a preparation containing xylenes, butyl acetate and ethylene glycol acetate. The person had irritation of the conjunctiva and upper respiratory tract, drowsiness and motor coordination disorders, which disappeared within 5 hours. The symptoms are attributed to poisoning by mixed xylenes and butyl acetate, with a possible synergistic effect responsible for the neurological effects. Cases of vacuolar keratitis are reported in workers exposed to a mixture of butyl acetate and isobutanol vapours, but with uncertainty concerning the responsibility of a particular solvent (INRC, 2011).

ACUTE TOXICITY

2,2-Dihydroxymethyl butanol
LD50 (Oral): > 14700 mg/kg Rat
LD50 (Dermal): > 100 mg/kg Rat
LC50 (Inhalation vapours): > 0.85 mg/l/4h RAT

XYLENE (MIXTURE OF ISOMERS)
LD50 (Oral): 3523 mg/kg Rat
LD50 (Dermal): 4350 mg/kg Rabbit
LC50 (Inhalation vapours): 26 mg/l/4h Rat

TITANIUM DIOXIDE
LD50 (Oral): > 10000 mg/kg Rat

ETHYLBENZENE
LD50 (Oral): 3500 mg/kg Rat
LD50 (Dermal): 15354 mg/kg Rabbit

ETHANOL
LD50 (Oral): > 5000 mg/kg Rat
LC50 (Inhalation vapours): 120 mg/l/4h Pimephales promelas

4-HYDROXY-4-METHYLPENTAN-2-ONE
LD50 (Oral): 4000 mg/kg Rat

PROPAN-2-OL
LD50 (Oral): 4710 mg/kg Rat
LD50 (Dermal): 12800 mg/kg Rat
LC50 (Inhalation vapours): 72.6 mg/l/4h Rat

ISOBUTYL METHYL KETONE
LD50 (Oral): 2080 mg/kg Rat
LD50 (Dermal): > 16000 mg/kg Rabbit
LC50 (Inhalation vapours): 11 mg/l/4h

N-BUTYL ACETATE
LD50 (Oral): 10768 mg/kg Rat
LD50 (Dermal): 17600 mg/kg Rabbit
LC50 (Inhalation vapours): 21.1 mg/l/4h Rat

MALEIC ANHYDRIDE
LD50 (Oral): 400 mg/kg Rat
LD50 (Dermal): 610 mg/kg Rat

SKIN CORROSION / IRRITATION

11. Toxicological information ... / >>

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

May cause cancer

Carcinogenicity Assessment:

13463-67-7	TITANIUM DIOXIDE	
		ACGIH:: A4
		IARC:2B
1330-20-7	XYLENE (MIXTURE OF ISOMERS)	
		ACGIH:: A4
		IARC:3
100-41-4	ETHYLBENZENE	
		ACGIH:: A3
		IARC:2B
7631-86-9	AMORPHOUS SILICATE HYDRATE	
		IARC:3
108-10-1	ISOBUTYL METHYL KETONE	
		ACGIH:: A3
		IARC:2B
64-17-5	ETHANOL	
		ACGIH:: A3
		IARC:1
67-63-0	PROPAN-2-OL	
		IARC:3
108-31-6	MALEIC ANHYDRIDE	
		ACGIH:: A4

XYLENE (MIXTURE OF ISOMERS)
Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC).
The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

ETHYLBENZENE
Classified in Group 2B (possible human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 2000).
Classified in Group D (not classifiable as a human carcinogen) by the US Environmental Protection Agency (EPA) - (US EPA file on-line 2014).

REPRODUCTIVE TOXICITY

Suspected of damaging fertility or the unborn child

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

May cause damage to organs

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

2,2-Dihydroxymethyl butanol

LC50 - for Fish	> 1000 mg/l/96h
EC50 - for Crustacea	13000 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 1000 mg/l/72h Pseudokirchnerella subcapitata

ETHYLBENZENE

LC50 - for Fish	48.5 mg/l/96h phimephales
EC50 - for Crustacea	75 mg/l/48h daphnia magna

N-BUTYL ACETATE

LC50 - for Fish	18 mg/l/96h pimephales promelas
EC50 - for Algae / Aquatic Plants	675 mg/l/72h

12.2. Persistence and degradability

2,2-Dihydroxymethyl butanol

Solubility in water	@ 25 °C g/l

XYLENE (MIXTURE OF ISOMERS)

Solubility in water Rapidly degradable	100 - 1000 mg/l

TITANIUM DIOXIDE

Solubility in water Degradability: information not available	< 0.001 mg/l

ETHYLBENZENE

Solubility in water Rapidly degradable	1000 - 10000 mg/l

METHANOL

Solubility in water Rapidly degradable	1000 - 10000 mg/l

ETHANOL

Solubility in water Rapidly degradable	1000 - 10000 mg/l

4-HYDROXY-4-METHYLPENTAN-2-ONE

Solubility in water Rapidly degradable	1000 - 10000 mg/l

12. Ecological information ... / >>

PROPAN-2-OL
Rapidly degradable

ISOBUTYL METHYL KETONE

Solubility in water	> 10000 mg/l

Rapidly degradable

2,6-DIMETHYLHEPTAN-4-ONE

Solubility in water	100 - 1000 mg/l

Rapidly degradable

N-BUTYL ACETATE

Solubility in water	1000 - 10000 mg/l

MALEIC ANHYDRIDE

Solubility in water	> 10000 mg/l

Entirely degradable

12.3. Bioaccumulative potential

2,2-Dihydroxymethyl butanol

Partition coefficient: n-octanol/water	-4.7 @ 26 °C
BCF	< 1

XYLENE (MIXTURE OF ISOMERS)

Partition coefficient: n-octanol/water	3.12
BCF	25.9

ETHYLBENZENE

Partition coefficient: n-octanol/water	3.6

METHANOL

Partition coefficient: n-octanol/water	-0.77
BCF	0.2

ETHANOL

Partition coefficient: n-octanol/water	-0.35

4-HYDROXY-4-METHYLPENTAN-2-ONE

Partition coefficient: n-octanol/water	-0.09

PROPAN-2-OL

Partition coefficient: n-octanol/water	0.05

ISOBUTYL METHYL KETONE

Partition coefficient: n-octanol/water	1.9

2,6-DIMETHYLHEPTAN-4-ONE

Partition coefficient: n-octanol/water	3.71
BCF	130

12. Ecological information ... / >>

N-BUTYL ACETATE

Partition coefficient: n-octanol/water	2.3
BCF	15.3

MALEIC ANHYDRIDE

Partition coefficient: n-octanol/water	-2.78

12.4. Mobility in soil

2,2-Dihydroxymethyl butanol

Partition coefficient: soil/water	0.176 @ 20°C

XYLENE (MIXTURE OF ISOMERS)

Partition coefficient: soil/water	2.73

ISOBUTYL METHYL KETONE

Partition coefficient: soil/water	2.008

2,6-DIMETHYLHEPTAN-4-ONE

Partition coefficient: soil/water	2.07

N-BUTYL ACETATE

Partition coefficient: soil/water	< 3

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 1263

14.2. UN proper shipping name

ADR / RID:	PAINT
IMDG:	PAINT
IATA:	PAINT

14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3

14.4. Packing group

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 33	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special provision: 163, 367, 640D, 650		
IMDG:	EMS: F-E, S-E	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 353
	Special provision:	A3, A72, A192	

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

Information not relevant

15. Regulatory information

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

U.S. Federal Regulations

Clean Air Act Section 112(b):
1330-20-7 XYLENE (MIXTURE OF ISOMERS)
100-41-4 ETHYLBENZENE
108-10-1 ISOBUTYL METHYL KETONE

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
100-41-4 ETHYLBENZENE

Clean Water Act – Toxic Pollutants:
100-41-4 ETHYLBENZENE

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

15. Regulatory information ... / >>

EPA List of Lists:
313 Category Code:

1330-20-7	XYLENE (MIXTURE OF ISOMERS)
100-41-4	ETHYLBENZENE
108-10-1	ISOBUTYL METHYL KETONE

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1330-20-7	XYLENE (MIXTURE OF ISOMERS)
100-41-4	ETHYLBENZENE
108-10-1	ISOBUTYL METHYL KETONE
123-86-4	N-BUTYL ACETATE

EPCRA 313 TRI:

1330-20-7	XYLENE (MIXTURE OF ISOMERS)
100-41-4	ETHYLBENZENE
108-10-1	ISOBUTYL METHYL KETONE

RCRA Code:

1330-20-7	XYLENE (MIXTURE OF ISOMERS)
108-10-1	ISOBUTYL METHYL KETONE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:

1330-20-7	XYLENE (MIXTURE OF ISOMERS)
7631-86-9	AMORPHOUS SILICATE HYDRATE
13463-67-7	TITANIUM DIOXIDE (Titanium dioxide (airborne, unbound particles of respirable size))
100-41-4	ETHYLBENZENE
64-17-5	ETHANOL
123-42-2	4-HYDROXY-4-METHYLPENTAN-2-ONE
108-10-1	ISOBUTYL METHYL KETONE
123-86-4	N-BUTYL ACETATE

Minnesota:

1330-20-7	XYLENE (MIXTURE OF ISOMERS)
7631-86-9	AMORPHOUS SILICATE HYDRATE
13463-67-7	TITANIUM DIOXIDE (Titanium dioxide (airborne, unbound particles of respirable size))
100-41-4	ETHYLBENZENE
64-17-5	ETHANOL
123-42-2	4-HYDROXY-4-METHYLPENTAN-2-ONE
108-10-1	ISOBUTYL METHYL KETONE
123-86-4	N-BUTYL ACETATE

New Jersey:

1330-20-7	XYLENE (MIXTURE OF ISOMERS)
13463-67-7	TITANIUM DIOXIDE (Titanium dioxide (airborne, unbound particles of respirable size))
100-41-4	ETHYLBENZENE
64-17-5	ETHANOL
123-42-2	4-HYDROXY-4-METHYLPENTAN-2-ONE
108-10-1	ISOBUTYL METHYL KETONE
123-86-4	N-BUTYL ACETATE

New York:

1330-20-7	XYLENE (MIXTURE OF ISOMERS)
100-41-4	ETHYLBENZENE
108-10-1	ISOBUTYL METHYL KETONE
123-86-4	N-BUTYL ACETATE

Pennsylvania:

1330-20-7	XYLENE (MIXTURE OF ISOMERS)

15. Regulatory information ... / >>

7631-86-9	AMORPHOUS SILICATE HYDRATE
13463-67-7	TITANIUM DIOXIDE (Titanium dioxide (airborne, unbound particles of respirable size))
100-41-4	ETHYLBENZENE
64-17-5	ETHANOL
123-42-2	4-HYDROXY-4-METHYLPENTAN-2-ONE
108-10-1	ISOBUTYL METHYL KETONE
123-86-4	N-BUTYL ACETATE

California:

1330-20-7	XYLENE (MIXTURE OF ISOMERS)
7631-86-9	AMORPHOUS SILICATE HYDRATE
100-41-4	ETHYLBENZENE
64-17-5	ETHANOL
123-42-2	4-HYDROXY-4-METHYLPENTAN-2-ONE
108-10-1	ISOBUTYL METHYL KETONE
123-86-4	N-BUTYL ACETATE

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

13463-67-7 TITANIUM DIOXIDE

	NSRL / MADL (µg/day)				
Hazard type	Oral	Dermal	Inhalation	Intravenous	Note

100-41-4 ETHYLBENZENE

	NSRL / MADL (µg/day)				
Hazard type	Oral	Dermal	Inhalation	Intravenous	Note
Carcinogenicity	41		54		-

108-10-1 ISOBUTYL METHYL KETONE

	NSRL / MADL (µg/day)				
Hazard type	Oral	Dermal	Inhalation	Intravenous	Note
Carcinogenicity					-
Development toxicity					-

International Regulations
Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H350	May cause cancer.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.

16. Other information ... / >>

H336 May cause drowsiness or dizziness.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: Regulation (EC) 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REACH: Regulation (EC) 1907/2006
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION
Product classification derives from criteria established by the OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200), unless determined otherwise in Section 11 and 12. The data for evaluation of chemical-physical properties are reported in section 9.