

Safety Data Sheet

according to UK REACH Regulation

Novusan

Revision date: 19.05.2023

Product code: PES1012498

Page 1 of 11

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Novusan

UFI: UA2W-G3GN-6D8X-RM5P

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

Plating agent (VOC value: 0 %)

1.3. Details of the supplier of the safety data sheet

Company name:	BKM.Mannesmann AG	
Street:	Wideystr. 23	
Place:	D-59174 Kamen	
Telephone:	+49 (0) 2307 9676 301	Telefax: +49 (0) 2307 9676 300
E-mail:	info@bkm-mannesmann.de	
Contact person:	Herr Oppel	
E-mail:	e.oppel@bkm-mannesmann.de	
Internet:	www.bkm-mannesmann.de	

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****GB CLP Regulation**

Asp. Tox. 1; H304

Full text of hazard statements: see SECTION 16.

2.2. Label elements**GB CLP Regulation****Hazard components for labelling**

Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03 % aromatics

Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, < 2 % aromatics

Signal word: Danger**Pictograms:****Hazard statements**

H304 May be fatal if swallowed and enters airways.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331	Do NOT induce vomiting.
P405	Store locked up.
P501	Dispose of contents / container in accordance with local regulations

Special labelling of certain mixtures

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

Safety Data Sheet

according to UK REACH Regulation

Novusan

Revision date: 19.05.2023

Product code: PES1012498

Page 2 of 11

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
	Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03 % aromatics			45 - < 50 %
	934-956-3		01-2119827000-58	
	Asp. Tox. 1; H304			
	Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, < 2 % aromatics			45 - < 50 %
	927-632-8		01-2119457736-27	
	Asp. Tox. 1; H304 EUH066			
67-56-1	methanol			< 0.1 %
	200-659-6	603-001-00-X		
	Flam. Liq. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, STOT SE 1; H225 H331 H311 H301 H370			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
	934-956-3	Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03 % aromatics	45 - < 50 %
		inhalation: LC50 = > 5266 mg/l (dusts or mists); dermal: LD50 = > 3160 mg/kg; oral: LD50 = > 5000 mg/kg	
	927-632-8	Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, < 2 % aromatics	45 - < 50 %
		inhalation: LC50 = > 5266 mg/l (dusts or mists); dermal: LD50 = > 3160 mg/kg; oral: LD50 = > 5000 mg/kg	
67-56-1	200-659-6	methanol	< 0.1 %
		inhalation: ATE = 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: ATE = 300 mg/kg; oral: ATE = 100 mg/kg STOT SE 1; H370: >= 10 - 100 STOT SE 2; H371: >= 3 - < 10	

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice.

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. If unconscious but breathing normally, place in recovery position and seek medical advice.

After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Observe risk of aspiration if vomiting occurs. If swallowed, rinse mouth with water (only if the person is conscious). Call a physician immediately.

Safety Data Sheet

according to UK REACH Regulation

Novusan

Revision date: 19.05.2023

Product code: PES1012498

Page 3 of 11

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

This material is combustible, but will not ignite readily.

In case of fire may be liberated: Carbon monoxide (CO), Carbon dioxide (CO₂), Pyrolysis products, toxic**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Evacuate area.

For non-emergency personnel

Provide adequate ventilation. Use personal protection equipment.

For emergency responders

Wear personal protection equipment (refer to section 8).

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up**For containment**

Stop leak if safe to do so. Cover drains.

For cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Ventilate affected area.

Other information

Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes.

Use personal protection equipment.

Safety Data Sheet

according to UK REACH Regulation

Novusan

Revision date: 19.05.2023

Product code: PES1012498

Page 4 of 11

Advice on protection against fire and explosion

Usual measures for fire prevention.

Keep away from sources of ignition - No smoking.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.

Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep only in the original container in a cool, well-ventilated place. Keep container tightly closed. Store in a dry place.

Hints on joint storage

Do not store together with: Oxidizing agents, strong.

Keep away from food, drink and animal feedingstuffs.

Further information on storage conditions

Protect from direct sunlight.

7.3. Specific end use(s)

Plating agent

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
-	Cycloalkanes >= C7	-	800		TWA (8 h)	WEL
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
67-56-1	Methanol	200	266		TWA (8 h)	WEL
		250	333		STEL (15 min)	WEL
-	Normal and branched chain alkanes >= C7 (it excludes n-heptane)	-	1200		TWA (8 h)	WEL

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Use eye protection according to EN 166.

Hand protection

Wear suitable gloves tested to EN374.

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Safety Data Sheet

according to UK REACH Regulation

Novusan

Revision date: 19.05.2023

Product code: PES1012498

Page 5 of 11

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Respiratory protection necessary at: exceeding exposure limit values

Thermal hazards

No information available.

Environmental exposure controls

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	colourless
Odour:	characteristic
Odour threshold:	not determined
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	not determined
Flammability:	This material is combustible, but will not ignite readily.
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	> 60 °C
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH-Value:	not applicable
Viscosity / kinematic:	not determined
Water solubility:	practically insoluble
Solubility in other solvents:	not determined
Partition coefficient n-octanol/water:	not determined
Vapour pressure:	not determined
Density:	not determined
Relative vapour density:	not determined
Particle characteristics:	not applicable

9.2. Other information

Other safety characteristics

Solvent content: VOC value: 0 %

Further Information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

Safety Data Sheet

according to UK REACH Regulation

Novusan

Revision date: 19.05.2023

Product code: PES1012498

Page 6 of 11

10.4. Conditions to avoid

UV-radiation/sunlight.

Keep away from sources of ignition - No smoking.

10.5. Incompatible materials

Oxidizing agents, strong.

NR (natural rubber, Natural latex), Butyl caoutchouc (butyl rubber), Styrene

10.6. Hazardous decomposition products

In case of fire may be liberated: Pyrolysis products, toxic

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
	Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03 % aromatics				
	oral	LD50 > 5000 mg/kg	Rat	Manufacturer	OECD 401
	dermal	LD50 > 3160 mg/kg	Rabbit	Manufacturer	OECD 402
	inhalation (4 h) dust/mist	LC50 > 5266 mg/l	Rat	Manufacturer	OECD 403
	Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, < 2 % aromatics				
	oral	LD50 > 5000 mg/kg	Rat	Manufacturer	OECD 401
	dermal	LD50 > 3160 mg/kg	Rabbit	Manufacturer	OECD 402
	inhalation (4 h) dust/mist	LC50 > 5266 mg/l	Rat	Manufacturer	OECD 403
67-56-1	methanol				
	oral	ATE 100 mg/kg			
	dermal	ATE 300 mg/kg			
	inhalation vapour	ATE 3 mg/l			
	inhalation dust/mist	ATE 0,5 mg/l			

Irritation and corrosivity

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

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

Safety Data Sheet

according to UK REACH Regulation

Novusan

Revision date: 19.05.2023

Product code: PES1012498

Page 7 of 11

STOT-repeated exposure

Repeated exposure may cause skin dryness or cracking.

Aspiration hazard

May be fatal if swallowed and enters airways.

Information on likely routes of exposure

oral, Skin contact, Eye contact, Inhalation.

11.2. Information on other hazards

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

SECTION 12: Ecological information

12.1. Toxicity

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

The product is not: Ecotoxic.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
	Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03 % aromatics					
	Acute fish toxicity	LC50 mg/l	> 1028	96 h	Scophthalmus maximus	Manufacturer
	Acute algae toxicity	ErC50 mg/l	> 10000	72 h	Skeletonema costatum	Manufacturer
	Acute crustacea toxicity	EC50 mg/l	> 3193	48 h	Acartia tonsa	Manufacturer
	Fish toxicity	NOEC mg/l	> 1000	28 d	Oncorhynchus mykiss (Rainbow trout)	Manufacturer
	Crustacea toxicity	NOEC mg/l	> 1000	21 d	Daphnia magna (Big water flea)	Manufacturer
	Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, < 2 % aromatics					
	Acute fish toxicity	LC50 mg/l	> 1028	96 h	Scophthalmus maximus	Manufacturer
	Acute algae toxicity	ErC50 mg/l	> 3200	72 h	Skeletonema costatum	Manufacturer
	Acute crustacea toxicity	EC50 mg/l	> 3193	48 h	Acartia tonsa	Manufacturer
	Fish toxicity	NOEC mg/l	> 1000	28 d	Oncorhynchus mykiss (Rainbow trout)	Manufacturer
	Crustacea toxicity	NOEC mg/l	> 1000	21 d	Daphnia magna (Big water flea)	Manufacturer

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
	Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, < 0.03 % aromatics			
	OECD 306	74 %	28	Manufacturer
	Readily biodegradable (according to OECD criteria).			
	Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, < 2 % aromatics			
	Biodegradation	74 %	28	Manufacturer
	Readily biodegradable (according to OECD criteria).			

Safety Data Sheet

according to UK REACH Regulation

Novusan

Revision date: 19.05.2023

Product code: PES1012498

Page 8 of 11

12.3. Bioaccumulative potential

The product has not been tested.

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)****14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Marine transport (IMDG)**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

Safety Data Sheet

according to UK REACH Regulation

Novusan

Revision date: 19.05.2023

Product code: PES1012498

Page 9 of 11

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 69, Entry 75

2010/75/EU (VOC): 0 %

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

Additional information

Observe in addition any national regulations!

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Safety Data Sheet

according to UK REACH Regulation

Novusan

Revision date: 19.05.2023

Product code: PES1012498

Page 10 of 11

Abbreviations and acronyms

CLP: Classification, labelling and Packaging
 REACH: Registration, Evaluation and Authorization of Chemicals
 GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
 UN: United Nations
 CAS: Chemical Abstracts Service
 DNEL: Derived No Effect Level
 DMEL: Derived Minimal Effect Level
 PNEC: Predicted No Effect Concentration
 ATE: Acute toxicity estimate
 LC50: Lethal concentration, 50%
 LD50: Lethal dose, 50%
 LL50: Lethal loading, 50%
 EL50: Effect loading, 50%
 EC50: Effective Concentration 50%
 ErC50: Effective Concentration 50%, growth rate
 NOEC: No Observed Effect Concentration
 BCF: Bio-concentration factor
 PBT: persistent, bioaccumulative, toxic
 vPvB: very persistent, very bioaccumulative
 ADR: Accord européen sur le transport des marchandises dangereuses par Route
 (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Regulations concerning the international carriage of dangerous goods by rail
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
 IMDG: International Maritime Code for Dangerous Goods
 EmS: Emergency Schedules
 MFAG: Medical First Aid Guide
 IATA: International Air Transport Association
 ICAO: International Civil Aviation Organization
 MARPOL: International Convention for the Prevention of Marine Pollution from Ships
 IBC: Intermediate Bulk Container
 VOC: Volatile Organic Compounds
 SVHC: Substance of Very High Concern
 For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).
 Flam. Liq: Flammable liquids
 Acute Tox: Acute toxicity
 Asp. Tox: Aspiration hazard
 STOT SE: Specific target organ toxicity - single exposure

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Asp. Tox. 1; H304	Calculation method

Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.
 H301 Toxic if swallowed.
 H304 May be fatal if swallowed and enters airways.
 H311 Toxic in contact with skin.
 H331 Toxic if inhaled.
 H370 Causes damage to organs.
 EUH066 Repeated exposure may cause skin dryness or cracking.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of

Safety Data Sheet

according to UK REACH Regulation

Novusan

Revision date: 19.05.2023

Product code: PES1012498

Page 11 of 11

product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)