SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

WS-Zink 80/81

UFI: F4V5-79JQ-SVJ5-QPVF

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

Use of the substance/mixture

industrial paint
Paint, Varnish.

Uses advised against

Do not use for products which come into contact with the food stuffs.

1.3. Details of the supplier of the safety data sheet

Company name:	W+S GmbH Lackchemie und Aerosol-Technik	
Street:	Am Sportplatz 5	
Place:	D-63791 Karlstein-Dettingen	
Telephone:	+49 6188 9575-0	Telefax: +49 6188 9575-30
E-mail:	info@ws-lackchemie.de	
Contact person:	Abt. Produkt / Sicherheit	
Responsible Department:	Abt. Produkt / Sicherheit	

1.4. Emergency telephone number:

+49 551-19240 GIZ-Nord Poisons Centre

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Flam. Liq. 3; H226
Aquatic Acute 1; H400
Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

2.2. Label elements

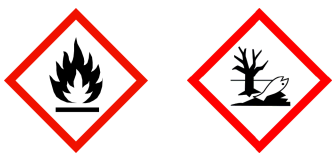
GB CLP Regulation

Hazard components for labelling

Lösungsmittelnaphta, leichte aromatische, Benzolgehalt <0,1%
maleic anhydride

Signal word: Danger

Pictograms:



Hazard statements

H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements

P273	Avoid release to the environment.
P370+P378	In case of fire: Use sand, dry chemical or alcohol-resistant foam to extinguish.
P501	Offer surplus and non-recyclable solutions to a licensed disposal company.

Special labelling of certain mixtures

EUH208 Contains Maleic anhydride; 2,2'-iminodiethylamine; diethylenetriamine. May produce an allergic reaction.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Paint, Varnish.

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
7440-66-6	zinc powder - zinc dust (stabilised)			50-75 %
	231-175-3	030-001-01-9		
	Aquatic Acute 1, Aquatic Chronic 1; H400 H410			
64742-95-6	Lösungsmittelnaphta, leichte aromatische, Benzolgehalt <0,1%			10-20 %
	918-668-5		01-2119455851-35	
	Flam. Liq. 3, STOT SE 3, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H226 H335 H336 H304 H411 EUH066			
1330-20-7	xylene			1-5 %
	215-535-7	601-022-00-9		
	Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2; H226 H332 H312 H315			
111-40-0	2,2'-iminodiethylamine; diethylenetriamine			< 0.1 %
	203-865-4	612-058-00-X		
	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1; H312 H302 H314 H317			
108-31-6	maleic anhydride			< 0.1 %
	203-571-6	607-096-00-9		
	Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Resp. Sens. 1, Skin Sens. 1A, STOT RE 1; H302 H314 H318 H334 H317 H372 EUH071			

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		
64742-95-6	918-668-5	Lösungsmittelnaphta, leichte aromatische, Benzolgehalt <0,1%	10-20 %
	inhalation: LC50 = 5,2 mg/l (vapours); dermal: LD50 = 3160 mg/kg; oral: LD50 = 2000 mg/kg		
1330-20-7	215-535-7	xylene	1-5 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: ATE = 1100 mg/kg		
111-40-0	203-865-4	2,2'-iminodiethylamine; diethylenetriamine	< 0.1 %
	dermal: LD50 = 672 mg/kg; oral: LD50 = 1540 mg/kg		
108-31-6	203-571-6	maleic anhydride	< 0.1 %
	dermal: LD50 = 2620 mg/kg; oral: LD50 = 400 mg/kg Skin Sens. 1A; H317: >= 0,001 - 100		

Further Information

Full text of R-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Give nothing to eat or drink.

After inhalation

In case of inhaling spray mists, consult a doctor immediately and show him box or label. If victim is at risk of losing consciousness, position and transport on their side. Provide fresh air.

After contact with skin

After contact with skin, wash immediately with: Water. Remove contaminated, saturated clothing immediately. Change contaminated clothing. Wash thoroughly the body (shower or bath).

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

After ingestion

If swallowed, immediately drink: Water. Do NOT induce vomiting. Call a physician immediately. Caution if victim vomits: Risk of aspiration!

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

Frequently or prolonged contact with skin may cause dermal irritation.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Foam. Dry extinguishing powder. Carbon dioxide (CO2). ABC powder.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Burning produces heavy smoke. In case of fire and/or explosion do not breathe fumes. Use water spray jet to protect personnel and to cool endangered containers. Contaminated fire-fighting water must be collected separately.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Suppress gases/vapours/mists with water spray jet. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Provide adequate ventilation. Remove all sources of ignition. Provide adequate ventilation. See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Other information

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. Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

See protective measures under point 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Preventive measures: If handled uncovered, arrangements with local exhaust ventilation have to be used. It is recommended to design all work processes always so that the following is excluded: inhalation. skin contact. Eye contact. Take precautionary measures against static discharges.

Advice on protection against fire and explosion

Vapours may form explosive mixtures with air.

Advice on general occupational hygiene

Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep only in the original container in a cool, well-ventilated place. Take precautionary measures against static discharges.

Hints on joint storage

Materials to avoid: Acid. Base. Material, combustible. Oxidizing agents.

Further information on storage conditions

Keep away from sources of ignition - No smoking. Protect against: heat. Keep/Store only in original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
111-40-0	2,2'-Iminodi(ethylamine)	1	4.3		TWA (8 h)	WEL
7429-90-5	Aluminium metal, respirable dust	-	4		TWA (8 h)	WEL
108-31-6	Maleic anhydride	-	1		TWA (8 h)	WEL
		-	3		STEL (15 min)	WEL
1330-20-7	Xylene: mixed isomers	50	220		TWA (8 h)	WEL
		100	441		STEL (15 min)	WEL

Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
1330-20-7	Xylene, o-, m-, p- or mixed isomers	methyl hippuric acid (creatinine)	650 mmol/mol	urine	Post shift

8.2. Exposure controls

Appropriate engineering controls

Occupational exposure controls: Refer to chapter 7. No further action is necessary.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: Framed glasses. Goggles.

Hand protection

Tested protective gloves are to be worn:
Suitable material: NBR (Nitrile rubber). , Butyl rubber.
Thickness of glove material: >0,4mm
penetration time (maximum wearing period): >480min
DIN-/EN-Norms EN ISO 374

Skin protection

Suitable protective clothing: Lab apron.

Respiratory protection

Respiratory protection necessary at: exceeding exposure limit values insufficient ventilation. insufficient absorbtion.

Environmental exposure controls

Refer to chapter 7 No further action is necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid	
Colour:	silver grey	
Odour:	characteristic	
Odour threshold:	not determined	
Boiling point or initial boiling point and boiling range:		145 °C
Lower explosion limits:		0,6 vol. %
Upper explosion limits:		7,8 vol. %
Flash point:		35 °C
Auto-ignition temperature:		205 °C
pH-Value:		not applicable
Vapour pressure: (at 20 °C)		2,1 hPa
Density:		2,142 g/cm³

9.2. Other information

Other safety characteristics

Solvent content:	VOCV (CH): 23,204 % VOC (EU): 496,937 g/l
Solid content:	76,8 %
Flow time:	600 (3 mm)

SECTION 10: Stability and reactivity

10.1. Reactivity

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

10.2. Chemical stability

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

10.3. Possibility of hazardous reactions

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

10.4. Conditions to avoid

Conditions to avoid:
In case of warming: Danger of bursting container.

10.5. Incompatible materials

Alkalis (alkalis). Acid. Oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition can lead to the escape of irritating gases and vapors.

SECTION 11: Toxicological information

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

Acute toxicity

Toxicological data are not available.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 5000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 12,5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64742-95-6	Lösungsmittelnaphta, leichte aromatische, Benzolgehalt <0,1%				
	oral	LD50 2000 mg/kg	Rat		
	dermal	LD50 3160 mg/kg	Rabbit.		
	inhalation (4 h) vapour	LC50 5,2 mg/l	Rat		
1330-20-7	xylene				
	dermal	ATE 1100 mg/kg			
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			
111-40-0	2,2'-iminodiethylamine; diethylenetriamine				
	oral	LD50 1540 mg/kg	Rat		
	dermal	LD50 672 mg/kg	Rabbit		
108-31-6	maleic anhydride				
	oral	LD50 400 mg/kg	Rat	GESTIS	
	dermal	LD50 2620 mg/kg	Rabbit	GESTIS	

Irritation and corrosivity

Evaluation: non-irritant.

STOT-repeated exposure

Has de-greasing effect on the skin.

Specific effects in experiment on an animal

Rat LD50: 4300 - 5800 mg/kg Acute toxicity, oral
Data apply to the main component.

Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

11.2. Information on other hazards

Further information

Toxicological data are not available.

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Doesn't get into the sewage water as long as the process is carried out according to regulations.
Very toxic for Water fleas.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
111-40-0	2,2'-iminodiethylamine; diethylenetriamine						
	Acute fish toxicity	LC50	430 mg/l	96 h	Leuciscus idus		
	Acute algae toxicity	ErC50 mg/l	1164	72 h	Selenastrum capricornutum		
	Acute crustacea toxicity	EC50 mg/l	53,5	48 h	Daphnia magna		
108-31-6	maleic anhydride						
	Acute algae toxicity	ErC50	29 mg/l	72 h	Desmodesmus subspicatus	IUCLID	

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
111-40-0	2,2'-iminodiethylamine; diethylenetriamine	-2,13

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.
No data available

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 data available

Further information

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

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.

List of Wastes Code - residues/unused products

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

List of Wastes Code - used product

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself. Hand over to officially registered waste disposal company.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	UN 1263
14.2. UN proper shipping name:	PAINT or PAINT RELATED MATERIAL
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3

Classification code:	F1
Special Provisions:	163 640E 650
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	30
Tunnel restriction code:	D/E

Other applicable information (land transport)

: 163 640E 650
: 3
E1

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 1263
14.2. UN proper shipping name:	Paint
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3

Classification code:	F1
Special Provisions:	163 367 650
Limited quantity:	5 L
Excepted quantity:	E1

Other applicable information (inland waterways transport)

: 163 640E 650

Marine transport (IMDG)

14.1. UN number or ID number:	UN 1263
14.2. UN proper shipping name:	PAINT
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3

Special Provisions:	163, 223, 367, 955
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-E, S-E

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 1263
14.2. UN proper shipping name:	PAINT
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3

Special Provisions:	A3 A72 A192
Limited quantity Passenger:	10 L
Passenger LQ:	Y344
Excepted quantity:	E1
IATA-packing instructions - Passenger:	355
IATA-max. quantity - Passenger:	60 L
IATA-packing instructions - Cargo:	366
IATA-max. quantity - Cargo:	220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes

Danger releasing substance: zinc powder - zinc dust (stabilised)

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

No information available.

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 28, Entry 40, Entry 75

Directive 2004/42/EC on VOC in paints and varnishes: VOCV (CH): 23,204 %
VOC (EU): 496,937 g/l

National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Water hazard class (D):	2 - obviously hazardous to water

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Abbreviations and acronyms

Flam. Liq: Flammable liquids
Acute Tox: Acute toxicity
Asp. Tox: Aspiration hazard
Skin Corr: Skin corrosion
Skin Irrit: Skin irritation
Eye Dam: Eye damage
Resp. Sens: Respiratory sensitisation
Skin Sens: Skin sensitisation
STOT SE: Specific target organ toxicity - single exposure
STOT RE: Specific target organ toxicity - repeated exposure
Aquatic Acute: Acute aquatic hazard
Aquatic Chronic: Chronic aquatic hazard

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

Classification	Classification procedure
Flam. Liq. 3; H226	On basis of test data
Aquatic Acute 1; H400	Calculation method
Aquatic Chronic 1; H410	Calculation method

Relevant H and EUH statements (number and full text)

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH071	Corrosive to the respiratory tract.
EUH208	Contains Maleic anhydride; 2,2'-iminodiethylamine; diethylenetriamine. May produce an allergic reaction.

Further Information

The product is classified and labelled according to EC directives or corresponding national laws.

The above information describes exclusively the safety requirements of the product and is based on our

present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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