SAFETY DATA SHEET

Version for USA

Creation Date: 05/13/2016

Tradename: MIXOL® No. 12 Tannengrün (Fir-Green)

SECTION 1: IDENTIFICATION

Identification of the company

MIXOL-PRODUKTE Diebold GmbH
Carl-Zeiss-Str. 17-19
73230 Kirchheim/Teck
Phone: 0049 / 7021 / 950090
Fax: 0049 / 7021 / 56030

Information to substance / preparation
Division: Technics
Phone: +49(0)7021 / 950090
E-mail: Technik@mixol.de

Emergency tel.number
Emergency CONTACT (24-Hour-Number)
GBK/Infotrac ID 107633: (USA DOMESTIC) 1 800 535 5053 or
International (001) 352 323 3500

Trade name

MIXOL® No. 12 Tannengrün (Fir-Green)

Primary product use

Colouring agent

Chemical family

C.I. Pigment Green 7, Yellow 42, Blue 15, Black7, Yellow 73, Yellow 74 and Calciumcarbonate in aqueous dispersion, containing Polyglykol- and 1,2-Propandiol.

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification

Germ cell mutagenicity:	Category 2
Carcinogenicity:	Category 2
Specific target organ toxicity - single exposure:	Category 3 (Respiratory system)

GHS Label element

Hazard pictograms:

Signal word: Warning
Warning

Hazard statements:		
	H335	May cause respiratory irritation.
	H341	Suspected of causing genetic defects.
	H351	Suspected of causing cancer.
		May form combustible dust concentrations in air.

Precautionary statements	**Prevention:**	
	P201	Obtain special instructions before use.
	P202	Do not handle until all safety precautions have been read and understood.
	P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
	P271	Use only outdoors or in a well-ventilated area.
	P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243	Take precautionary measures against static discharge.
P233	Keep container tightly closed.
Response:	
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
Storage:	
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
Disposal:	
P501	Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Hazardous components

Chemical name	CAS-No.	Concentration (%)
C.I. Pigment Black 7	1333-86-4	>=<=20

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4: FIRST AID MEASURES

General advice

Get medical advice / attention if you feel unwell.

If inhaled

Move the victim to fresh air.
Give oxygen or artificial respiration if needed.
Get immediate medical advice/ attention.
Never give anything by mouth to an unconscious person.

In case of skin contact

Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

In case of eye contact

Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.

If swallowed

If conscious, give the victim plenty of water to drink.
Consult a physician.
Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

None known.

Notes to physician

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

Suitable extinguishing media

Water spray jet
Dry powder
Carbon dioxide (CO_2)
Alcohol-resistant foam

Unsuitable extinguishing media

High volume water jet

Specific hazards during firefighting

In case of fires, hazardous decomposition products may be produced such as:
Carbon oxides
Nitrogen oxides (NO_X)
Hydrogen chloride

Further information

Wear suitable protective equipment.

Special protective equipment for firefighters

Self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear suitable personal protective equipment.
Information regarding Safe handling, see chapter 7.

Environment precautions

The product should not be allowed to enter drains, water courses or the soil.

Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Treat recovered material as described in the section "Disposal considerations".

SECTION 7: HANDLING AND STORAGE

Advice on protection against fire and explosion

Normal measures for preventive fire protection.

Advice on safe handling

Use personal protective equipment.
Avoid breathing dust.
Avoid contact with skin and eyes.
Wash thoroughly after handling.
Store in a dry place.
Keep away from heat.
Store in original container.
Keep container tightly closed.

Technical measures/Precautions

Keep containers tightly closed in a cool, well-ventilated place.Handle and open container with care.
Keep away from flames and sparks.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters/ Permissible concentration	Basis
Copper (as an integral part of dye molecule)	7440-50-8	TWA	1 mg/m^3 (Copper)	ACGIH
	Further information: Irritation, Gastrointestinal, metal fume fever			
		TWA (dust and mists)	1 mg/m^3 (Copper)	NIOSH REL
		TWA	1 mg/m^3 (Copper)	OSHA Z-1
		TWA	1 mg/m^3 (Copper)	OSHA P0
		TWA	0,2 mg/m^3 (Copper)	ACGIH
	Further information: Irritation, Gastrointestinal, metal fume fever			
		TWA	0,1 mg/m^3 (Copper)	OSHA Z-1
		TWA	0,1 mg/m^3 (Copper)	OSHA P0
		TWA (dust and mists)	1 mg/m^3 (Copper)	ACGIH
	Further information: Irritation, Gastrointestinal, metal fume fever			
		TWA (Fumes)	0,2 mg/m^3 (Copper)	ACGIH
	Further information: Irritation, Gastrointestinal, metal fume fever			
		TWA (Dust)	1 mg/m^3 (Copper)	NIOSH REL
		TWA (dust and mists)	1 mg/m^3 (Copper)	NIOSH REL
		TWA (Mist)	1 mg/m^3 (Copper)	NIOSH REL
		TWA (dust and mists)	1 mg/m^3 (Copper)	OSHA Z-1
		TWA (Fumes)	0,1 mg/m^3 (Copper)	OSHA Z-1
		TWA (Fumes)	0,1 mg/m^3 (Copper)	OSHA P0
		TWA (dust and mists)	1 mg/m^3 (Copper)	OSHA P0

Components	CAS-No.	Value type (Form of exposure)	Control parameters/ Permissible concentration	Basis
Amorphous silicon dioxide	7631-86-9	TWA	6 mg/m^3	NIOSH REL
		TWA	20 Million particles per cubic foot	OSHA Z-3
	Further information: Millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques., mppcf X 35.3 = million particles per cubic meter = particles per c.c			
Propylene Glycol	57-55-6	TWA	10 mg/m^3	US WEEL
Calcium carbonate	471-34-1	TWA (respirable)	5 mg/m^3	NIOSH REL
		TWA (total)	10 mg/m^3	NIOSH REL

Engineering measures

Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Respiratory protection:
Use NIOSH/MSHA approved respirators following manufacturer's recommendations where dust or fume may be generated.
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection Remarks:
Butyl Rubber, PVC or Neoprene.

Eye protection:
Safety glasses or chemical splash goggles.

Skin and body protection:
Wear suitable protective equipment.

Protective measures:
Wear suitable protective equipment.

Hygiene measures:
Wash hands before breaks and at the end of workday.
Use protective skin cream before handling the product.
Take off immediately all contaminated clothing and wash it before reuse.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance:	liquid
Colour:	green
Odour:	not significant
Odour threshold:	not required
pH value:	not measured
Boiling point:	approx. 100 °C
Flash point:	> 100 °C
Evaporation rate:	not determined
Flammability:	not determined
Lower explosion limit:	not determined
Upper explosive limit:	not determined
Combustion number:	not applicable
Vapour pressure:	not determined

Relative vapour density:	not determined
Relative Density:	no data available
Density:	1,47 g/cm^3
Solubility in water:	miscible
Octanol/ water partition n-coefficient (log Pow):	not determined
Auto-ignition temperature:	not determined
Decomposition temperature:	> 100 °C
Viscosity (dynamic):	not applicable
Oxidizing properties:	no data available
Melting point:	Not applicable
Molecular weight:	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical Stability

Stable under normal conditions.

Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.
Stable.

Conditions to avoid

None known.

Incompatible Materials

No data available.

Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: TOXICOLOGIC INFORMATION

Acute toxicity

Product:

Acute oral toxicity:	Remarks: no data available
Acute inhalation toxicity:	Remarks: no data available
Acute dermal toxicity:	Remarks: no data available

Components:

C.I. Pigment Black 7:

Acute oral toxicity:	LD50 (Rat, male and female): > 8,000 mg/kg Method: OECD Test Guideline 401 GLP: no
Acute inhalation toxicity:	LC50 (Rat): > 0,0046 mg/l Exposure time: 4 h Method: Other GLP: No information available
Acute dermal toxicity:	Remarks: not reasonable

Skin corrosion/irritation

Product:

Species:	EPISKIN Human Skin Model Test
Method:	OECD Test Guideline 439
Result:	No skin irritation
Remarks:	The toxicological data has been taken from products of similar composition.

Components:
C.I. Pigment Black 7:

Species:	Rabbit
Exposure time:	24 h
Method:	OECD Test Guideline 404
Result:	No skin irritation
GLP:	no

Serious eye damage/eye irritation

Product:

Species:	Bovine cornea
Result:	No eye irritation
Method:	OECD Test Guideline 437
Remarks:	The toxicological data has been taken from products of similar composition.
Species:	rabbit eye
Result:	No eye irritation
Method:	OECD Test Guideline 405
Remarks:	The toxicological data has been taken from products of similar composition.

Components:
C.I. Pigment Black 7:

Species:	Rabbit eye
Result:	No eye irritation
Method:	OECD Test Guideline 405
GLP:	no

Respiratory or skin sensitisation

Product:

Remarks:	no data available

Components:
C.I. Pigment Black 7:

Test Type:	Buehler Test
Exposure routes:	Skin contact
Species:	Guinea pig
Method:	OECD Test Guideline 406
Result:	non-sensitizing
GLP:	yes

Germ cell mutagenicity

Product:

Genotoxicity in vitro:	Remarks: no data available
Germ cell mutagenicity – Assessment:	No information available.

Components:
C.I. Pigment Black 7:
Genotoxicity in vitro:

Test Type:	Ames test
Species:	Salmonella typhimurium
Metabolic activation:	with and without
Method:	OECD Test Guideline 471
Result:	negative
GLP:	yes
Test Type:	Ames test
Species:	Escherichia coli

Metabolic activation:	with and without
Method:	OECD Test Guideline 471
Result:	negative
GLP:	yes
Genotoxicity in vivo:	Result: ambiguous
Germ cell mutagenicity - Assessment:	Weight of evidence does not support classification as a germ cell mutagen.

Carcinogenicity

Product:

Carcinogenicity - Assessment:	No information available.

Components:

C.I. Pigment Black 7:

Carcinogenicity - Assessment:	Not classifiable as a human carcinogen.

Reproductive toxicity

Product:

Reproductive toxicity – Assessment:	No information available.

Components:

C.I. Pigment Black 7:

Effects on fertility:	Remarks: The study is not necessary from a scientific perspective.
Effects on foetal development:	Remarks: The study is not necessary from a scientific perspective.
Reproductive toxicity - Assessment:	No reproductive toxicity to be expected. No teratogenic effects to be expected.

STOT - single exposure

Product:

Remarks:	no data available

Components:

C.I. Pigment Black 7:	Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Product:

Remarks:	no data available

Components:

C.I. Pigment Black 7:	Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Product:

Remarks:	This information is not available.

Components:

C.I. Pigment Black 7:

Species:	Rat, female
NOAEL:	52 mg/kg
Application Route:	oral (feed)
Exposure time:	1 a - 2 a
Number of exposures:	daily
Dose:	2,05 g/kg of chow diet

Group:	yes
Method:	Repeated Dose Toxicity (chronic Toxicity)
GLP:	No information available.
Remarks:	The product is non-toxic.
Species:	Rat, male
NOAEL:	0.0011 mg/l
LOAEL:	0.0071 mg/l
Application Route:	Inhalation
Exposure time:	13 w
Number of exposures:	6 h per day; 5 d per week
Dose:	1,1 - 7,1 - 52,8 mg/m^3
Group:	yes
Method:	OECD Test Guideline 413
GLP:	No information available.
Species:	Mouse, male and female
Application Route:	Skin contact
Exposure time:	12-18 m
Number of exposures:	3 times per week
Dose:	20 % carbon black suspensions
Group:	yes
Method:	Repeated Dose Toxicity (chronic Toxicity)
GLP:	no
Remarks:	The product is non-toxic.

Aspiration toxicity

Product:

no data available

Components:

C.I. Pigment Black 7:	No aspiration toxicity classification

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish:	Remarks: no data available
Toxicity to daphnia and other aquatic invertebrates:	Remarks: no data available
Toxicity to algae:	Remarks: no data available
Toxicity to fish (Chronic toxicity):	Remarks: no data available
Toxicity to bacteria:	Remarks: no data available

Components:

C.I. Pigment Black 7:	
Toxicity to fish:	LC0 (Brachydanio rerio (zebrafish)): 1,000 mg/l
Exposure time:	96 h
Test Type:	semi-static test
Analytical monitoring:	no
Method:	OECD Test Guideline 203
GLP:	yes
Remarks:	The details of the toxic effect relate to the nominal concentration.

Toxicity to daphnia and other aquatic invertebrates:

EC50 (Daphnia magna (Water flea)):	> 5,600 mg/l
Exposure time:	24 h
Test Type:	static test
Analytical monitoring:	no
Method:	OECD Test Guideline 202
GLP:	yes
Remarks:	The details of the toxic effect relate to the nominal concentration.

NOEC (Daphnia magna (Water flea)):	3,200 mg/l
Exposure time:	24 h
Test Type:	static test
Analytical monitoring:	no
Method:	OECD Test Guideline 202
GLP:	yes
Remarks:	The details of the toxic effect relate to the nominal concentration.

Toxicity to algae:

EC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)):	> 10,000 mg/l
End point:	Growth rate
Exposure time:	72 h
Test Type:	static test
Analytical monitoring:	no
Method:	OECD Test Guideline 201
GLP:	yes
Remarks:	The details of the toxic effect relate to the nominal concentration.

NOEC (Desmodesmus subspicatus (Scenedesmus subspicatus)):	> 10,000 mg/l
End point:	Growth rate
Exposure time:	72 h
Test Type:	static test
Analytical monitoring:	no
Method:	OECD Test Guideline 201
GLP:	yes
Remarks:	The details of the toxic effect relate to the nominal concentration.

Toxicity to fish (Chronic toxicity): Remarks: not reasonable

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): Remarks: not reasonable

Toxicity to bacteria:

EC0 (activated sludge, domestic):	> 400 mg/l
Exposure time:	3 h
Test Type:	static test
Analytical monitoring:	no
Method:	DEV L 3
GLP:	no

Remarks:	The details of the toxic effect relate to the nominal concentration.
Sediment toxicity:	Remarks: not applicable

Persistence and degradability

Product:

Biodegradability:	Remarks: no data available

Components:

C.I. Pigment Black 7:

Biodegradability:	Remarks: not applicable

Bioaccumulative potential

Product:

Bioaccumulation:	Remarks: no data available

Components:

C.I. Pigment Black 7:

Bioaccumulation:	Remarks: not applicable.

Mobility in soil

Components:

C.I. Pigment Black 7:

Mobility:	Remarks: Known distribution to environmental compartments
Distribution among environmental compartments:	Adsorption/Soil Medium: water – soil Remarks: not applicable

Other adverse effects

Product:

Environmental fate and pathways:	Remarks: no data available
Additional ecological information:	no data available

Components:

C.I. Pigment Black 7:

Environmental fate and pathways:	not available
Results of PBT and vPvB assessment:	The substance is not identified as a PBT or as a vPvB substance.
Additional ecological information:	Do not allow to enter ground water, waterways or waste water.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues:	Dispose of in accordance with the European Directives on waste and hazardous waste.
Contaminated packaging:	This material and its container must be disposed of in a safe way.

SECTION 14: TRANSPORT INFORMATION

DOT:	not restricted
IATA:	not restricted
IMDG:	not restricted

SECTION 15: REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act
CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Copper	7440-50-8	5000	

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards: Acute Health Hazard
Chronic Health Hazard

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: Effective June 24, 1991, C.I. pigment blue 15, CAS number 147-14-8; C.I. pigment green 7, CAS number 1328-53-6; and C.I. pigment green 36, CAS number 14302-13-7 are exempt from reporting requirements under the category copper compounds from the list of toxic chemicals under Section 313 of the Emergency Planning and Community Right-To-Know Act. Although these compounds have been delisted, this product still contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are show below. This information must be included in all MSDSs that are copied and distributed for this material.

Clean Water Act

Contains no known priority pollutants at concentrations greater than 0.1 %.

The components of this product are reported in the following inventories

TSCA: One or more of the components of this product is not listed on the Toxic Substances Control Act (TSCA) Inventory. The product is thus sold under the restriction that it is only for use in research and development. This product must be used under the supervision of a technically qualified individual capable of understanding its potential hazards.

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16: OTHER INFORMATION

Further information

Revision Date:

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications.

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