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SECTION 1: IDENTIFICATION OF SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1. Product identifier

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

Relevante identified uses of the substance or mixture

Industry sector: Industrial Performance Chemicals

Paints, lacquers and varnishes industry

Polymers industry Printing Inks Industry

Type of use: Colourant preparation

1.3. Details of the supplier of the safety data sheet

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 / mixture:

Division: Technics

Phone: +49(0)7021 / 950090 E-mail: Technik@mixol.de

1.4. Emergency telephone number

GBK Gefahrgut Büro GmbH, Ingelheim, Germany

Emergency CONTACT (24-Hour-Number)

GBK/Infotrac ID 107633: (US domestic): 1-800-5355-053 or

From outside US: (001) 352-323-3500

SECTION 2: HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS).

GHS label elements

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS).

Other hazards

None known.

SECTION 3: COMPOSITION / INFORMATION TO INGREDIENTS

Hazardous ingredients

Chemical Name	CAS-No.	Concentration (% w/w)
Aluminum	7429-90-5	>= 30 - < 50
Phosphoric acid, C11-14-isoalkyl esters, C13-rich	154518-38-4 (52933-07-0)	>= 1 - < 5
Ethanol, 2,2',2"-nitrilotris-	102-71-6	>= 1 - < 5
Ethanol, 2-(dimethylamino)-	108-01-0	>= 0.1 - < 1

Actual concentration is withheld as a trade secret



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SECTION 4: FIRST AID MEASURES

General advice:

Take the victim into fresh air.

Do not leave the victim unattended.

If inhaled:

Remove to fresh air.

If unconscious, place in recovery position and seek medical advice.

If symptoms persisit, call a physician.

In case of skin contact:

Wash of immediately with soap and a plenty of water.

In case of eye contact:

Immediately flush eye(s) with plenty of water.

Remove contact lenses.

If eye irritation persists, consult a specialist.

If swallowed:

Keep respiratory tract clear.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed

None known.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Dry sand

ABC-Powder

Foam

Unsuitable extinguishing media

Water

Further information:

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Evacuate personal to save areas.

Methods and material for containment and cleaning up

Use mechanical handling equipment.

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Wipe up with absorbent material (e.g. cloth, fleece).

Keep in suitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE



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Advice on protection against fire and explosion:

Normal measures for preventive fire protection

Advice on safe handling:

For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the application area.

Conditions for safe storage:

Earthing of containers and apparatuses is essential.

Take measures to prevent the build up of electrostatic charge.

Use explosion-proof equipment.

Store in original container.

Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid:

Do not store near acids.

Do not store together with oxidizing and self-igniting products.

Keep away from oxidizing agents, strongly acid and alkaline materials.

Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

in order to avoid exothermic reactions.

No materials to be especially mentioned

Further information on storage stability:

No decomposition if stored and applied as directed.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION Ingredients with workplace control parameters

Components	CAS.No.:	Value type (Form of exposure)	Control- parameters / Permissible concentration	Basis
Aluminum	7429-90-5	TWA (total dust)	50 Million particles per cubic foot	OSHA Z-3
		TWA (Respirable)	5 mg/m³	NIOSH REL
		TWA (total dust)	15 mg/m³	OSHA Z-3
		TWA (total)	10 mg/m³	NIOSH REL
		TWA (respirable fraction)	5 mg/m³	OSHA Z-3
		TWA (respirable fraction)	15 Million particles per cubic foot	OSHA Z-3
		TWA (Respirable particulate matter)	1 mg/m³	ACGIH
		TWA	5 mg/m³ (Aluminum)	NIOSH REL
_		TWA (Total)	15 mg/m³ (Aluminum)	OSHA P0



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		TWA (Respirable fraction)	5 mg/m³ (Aluminum)	OSHA P0
		TWA (total dust)	15 mg/m³ (Aluminum)	OSHA Z-1
		TWA (respirable fraction)	5 mg/m³ (Aluminum)	OSHA Z-1
		TWA (Total dust)	15 mg/m³ (Aluminum)	OSHA P0
		TWA (respirable dust fraction)	5 mg/m³ (Aluminum)	OSHA P0
		TWA (welding fumes)	5 mg/m³ (Aluminum)	NIOSH REL
		TWA (pyro powders)	5 mg/m³ (Aluminum)	NIOSH REL
		TWA (Respirable particulate matter)	1 mg m³ (Aluminum)	ACGIH
		TWA (Fumes)	5 mg/m³	OSHA P0
Ethanol, 2,2',2"- nitrilotris-	102-71-6	TWA	5 mg/m³	ACGIH

Personal protective equipment

Respiratory protection: Use suitable breathing protection if workplace concentration requires.

No personal respiratory protective equipment normally required.

Hand protection

Material: Solvent-resistant gloves (butyl-rubber)

Remarks: Take note of the information given by the producer concerning

permeability and break through times, and of special workplace

conditions (mechanical strain, duration of contact).

Please observe the instructions regarding permeability and

breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion,

and the contact time.

Recommended preventive skin protection. Skin should be washed after contact.

The suitability for a specific workplace should be discussed with

the producers of the protective gloves.

Eye protection: Goggles

Safety glasses.

Skin and body protection: Protective suit

<u>Hygiene measures:</u> General industrial hygiene practice.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: liquid Colour: silver

Odour: characteristic
Odour Threshold: No data available



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pH: 6 -8

Concentration: 100%

Melting point / Freezing point:

No data available
Initial boiling point/boiling range:

No data available

Flash point: > 100 °C

Evaporation rate: No data available Flammability (solid, gas): No data available

Upper explosion limit /

Upper flammability limit: No data available

Lower explosion limit /

Lower flammability limit: No data available Vapor pressure: No data available Relative density: No data available Solubility(ies) No data available

Partition coefficient:

n-octanol/water: No data available
Autoignition temperature No data available
Decomposition temperature: No data available
Viscosity, No data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity

No decomposition if stored and applied as directed.

Chemical Stability

No decomposition if stored and applied as directed.

Possibility of hazardous reactions

Contact with acids and alkalis may release hydrogen.

Stable under recommended storage conditions.

No hazards to be specially mentioned

Conditions to avoid

Do not allow evapouration to dryness.

No data available.

Incompatible materials

Acids

Bases

Oxidizing agents

SECTION 11: TOXICOLOGIC INFORMATION

Acute toxicity

Not classified based on available information..

Components:

Ethanol, 2-(dimethylamino)-:

Acute oral toxicity Assessment: The component/mixture is moderately toxic

after single ingestion.

Acute inhalation toxicity Assessment: The component/mixture is toxic after short

term inhalation.

Acute dermal toxicity : Assessmer(Rath)e>c2r000nent/mixture is moderately toxic

after singlemg/htgct with skin.

Skin corrosion/irritation:



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Not classified based on available information.

Components:

Phosphoric acid, C11-14-isoalkyl esters, C13-rich:

Result: Skin irritation.

Ethanol, 2-(dimethylamino)-:

Assessment: Corrosive

Remarks: May cause eye and skin irritation. .

Serious eye damage/eye irritation:

Not classified based on available information..

Components:

Phosphoric acid, C11-14-isoalkyl esters, C13-rich:

Result: Corrosive.

Ethanol, 2-(dimethylamino)-:

Result: Corrosive

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information

IARC No ingredient of this product present at levels

greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen

by IARC.

OSHA No component of this product present at levels

greater than or equal to 0.1% is on OSHA's list of

regulated carcinogens.

NTP No ingredient of this product present at levels

greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

STOT-single exposure

Not classified based on available information.

Components:

Ethanol, 2-(dimethylamino)-:

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

STOT-repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.



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Further information

SECTION 12: ECOLOGICAL INFORMATION

Exotoxicity

Components:

Phosphoric acid, C11-14-isoalkyl esters, C13-rich:

Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): 24 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates:

EC50 (Daphnia magna (Water flea)): 6.31 mg/l

Exposure time: 48 h

Toxicity to algae : EC50 (algae): 150 mg/l

Exposure time: 72 h

Ethanol, 2-(dimethylamino)-:

Toxicity to daphnia and other

aquatic invertebrates:

(Daphnia): 98.77 mg/l

Toxicity to algae: (Chlorella pyrenoidosa): 35 mg/l

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Other adverse effects

No data available

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal methods

Contaminated packaging: Empty containers should be taken to an approved

waste handling site for recycling or disposal.

SECTION 14: TRANSPORT INFORMATION

Domestic regulation

49 CFR

Not regulated as a dangerous good

International regulation

IATA-DGR

Not permitted for transport

IMDG-Code

Not regulated as a dangerous good

Remarks: Due to the risk of hydrogen development we recommend

to refrain from airfreighting this/these product(s)., Not classified as dangerous in the meaning of transport

regulations.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.



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SECTION 15: REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Components	CAS.No.:	Component RQ (lbs)
Ethanol, 2-(dimethylamino)-	108-01-0	100

SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : The following components are subject to reporting levels

established by SARA Title III, Section 313:

Aluminum 7429-90-5 >= 30 - < 50 %

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

Ethanol, 2,2',2"-nitrilotris- 102-71-6 %

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contains any toxic pollutants listed under the U.S. Clean Water Act Section 307 This product does not contain any priority pollutants related to the U.S. Clean Water Act

US State Regulations

Massachusetts Right To Know

Aluminum 7429-90-5 Ethanol, 2,2',2"-nitrilotris-

Pennsylvania Right To Know

Water	7732-18-5
Aluminum	7429-90-5
Phosphoric acid, C11-14-isoalkyl esters, C13-rich	154518-38-4
Ethanol, 2,2',2"-nitrilotris-	102-71-6

California Prop. 65



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WARNING: This product can expose you to chemicals including lead and cadmium, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



WARNING: This product can expose you to chemicals including Ethanol, 2,2'-iminobis-, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

Aluminum 7429-90-5

California Permissible Exposure Limits for Chemical Contaminants

Aluminum 7429-90-5 Ethanol, 2,2',2"-nitrilotris- 102-71-6

The ingredients of this product are reported in the following inventories:

DSL: This product contains one or several components listed in the Canadian NDSL.

TSCA: On TSCA Inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16: OTHER INFORMATION

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL : USA. NIOSH Recommended Exposure Limits
OSHA P0 : USA. OSHA - TABLE Z-1 Limits for Air

Contaminants - 1910.1000

OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) -

Table Z-1 Limits for Air Contaminants

OSHA Z-3 : USA. Occupational Exposure Limits (OSHA) -

Table Z-3 Mineral Dusts

ACGIH / TWA : 8-hour, time-weighted average

NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek

OSHA P0 / TWA : 8-hour time weighted average OSHA Z-1 / TWA : 8-hour time weighted average OSHA Z-3 / TWA : 8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response



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Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory: LC50 - Lethal Concentration to 50 % of a test population: LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

This information corresponds to the present state of our knowledge and is intended as a general description of our products and their possible applications. MIXOL-PRODUKTE Diebold GmbH makes no warranties, express or implied, as to the information accuracy, adequacy, sufficiency or freedom from defect and assumes no liability in connection with any use of this information. Any user of this product is responsible for determining the suitability of MIXOL products for its particular application. Nothing included in this information waives any of MIXOL's General Terms and Conditions of Sale, which control unless it agrees otherwise in writing.

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For additional information, please contact MIXOL-PRODUKTE Diebold GmbH.