4 EM

Tel. +49(0)911-642960 Fax. +49(0)911-644456

e-mail info@akemi.de

Printing date 01/22/2014 Reviewed on 01/22/2014

1 Identification

· Product identifier

· Trade name: **Lettering Colour Spray Antique Gold**

11416

· Article number:

· Relevant identified uses of the substance or mixture and uses

advised against

· Application of the substance / the

Lacquer mixture

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH

> Lechstrasse 28 D 90451 Nürnberg

· Information department: Laboratory

Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH · Emergency telephone number:

No further relevant information available.

Tel. +49(0)911-64296-59

Reachable during the following office hours: Monday – Thursday from 07:30 a.m. to 16:30 p.m.

Friday from 07:30 a.m. to 13:30 p.m.

2 Hazard(s) identification

· Classification of the substance or mixture



GHS02 Flame

Flam. Aerosol 1 H222 Extremely flammable aerosol.



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Irritant

Irritating to eyes.



Extremely flammable

Extremely flammable.

Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

· Information concerning particular

hazards for human and

environment:

Vapours of the product are heavier than air and may accumulate on the ground,

in mines, drains or cellars with higher concentration.

Contact with skin and inhalation of aerosols/ vapours of the preparation should

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version. At long or repeated contact with skin it may cause dermatitis due to the

degreasing effect of the solvent. Warning! Pressurized container.

Has a narcotizing effect.

· Classification system: The classification was made according to the latest editions of international

substances lists, and expanded upon from company and literature data.

(Contd. on page 2)



Printing date 01/22/2014 Reviewed on 01/22/2014

Trade name: Lettering Colour Spray Antique Gold

(Contd. of page 1)

· Label elements

Labelling according to EU guidelines:

The product has been classified and marked in accordance with directives on hazardous materials.

Code letter and hazard designation of product:





Xi Irritant

F+ Extremely flammable

• Risk phrases: Extremely flammable.

Irritating to eyes.

Repeated exposure may cause skin dryness or cracking

Vapours may cause drowsiness and dizziness

· Safety phrases: Keep out of the reach of children.

Keep container in a well-ventilated place.

Keep away from sources of ignition - No smoking.

Do not breathe vapour/spray. Avoid contact with skin and eyes.

In case of contact with eyes, rinse immediately with plenty of water and seek

medical advice.

Do not empty into drains, dispose of this material and its container at hazardous

or special waste collection point

Take precautionary measures against static discharges.

Wear suitable gloves and eye/face protection.

In case of insufficient ventilation, wear suitable respiratory equipment.

If swallowed, seek medical advice immediately and show this container or label.

Use only in well-ventilated areas.

- Special labeling of certain

preparations:

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material.

Buildup of explosive mixtures possible without sufficient ventilation.

· Classification system:

· NFPA ratings (scale 0 - 4)



Health = 1 Fire = 4 Reactivity = 3

· HMIS-ratings (scale 0 - 4)

HEALTH 1
FIRE 4
REACTIVITY 3

Health = 1 Fire = 4 Reactivity = 3

· Other hazards

· Results of PBT and vPvB assessment

PBT: Not applicable.√PvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

• Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:

(Contd. on page 3)



Safety Data Sheet

Printing date 01/22/2014 Reviewed on 01/22/2014

ade name: Lettering Colour S	Spray Antique Gold						
rade name: Lettering Colour Spray Antique Gold (Contd. of page							
CAS: 67-64-1 EINECS: 200-662-2 Index number: 606-001-00-8	acetone Xi R36; FR11	25-50%					
CAS: 123-86-4 EINECS: 204-658-1 Index number: 607-025-00-1	n-butyl acetate R10-66-67	12.5-25%					
CAS: 106-97-8 EINECS: 203-448-7 Index number: 601-004-00-0	butane	12.5-25%					
CAS: 115-10-6 EINECS: 204-065-8 Index number: 603-019-00-8	dimethyl ether F+ R12 R18 Flam. Gas 1, H220; Flam. Liq. 1, H224; Press. Gas, H280	12.5-25%					
CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5	propane	<12.5%					
CAS: 108-65-6 EINECS: 203-603-9 Index number: 607-195-00-7	2-methoxy-1-methylethyl acetate R10 Flam. Liq. 3, H226	<12.5%					
CAS: 64742-95-6 EINECS: 265-199-0 Index number: 649-356-00-4	Solvent naphtha (petroleum), light arom. Xn R65; N R51/53 R10-66-67 ♦ Flam. Liq. 3, H226; ♦ Asp. Tox. 1, H304; ♦ Acute Tox. 4, H332; STOT SE 3, H336	<1%					

4 First-aid measures

· Additional information:

· Description of first aid measures

General information:
 After inhalation:
 Immediately remove any clothing soiled by the product.
 Supply fresh air; consult doctor in case of complaints.

· After skin contact: Immediately wash with water and soap and rinse thoroughly.

· After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist,

consult a doctor.

· After swallowing: If symptoms persist consult doctor.

Information for doctor: Therapy in hydrocarbons intoxication: In case of inhalation provision of fresh air;

in case of peroral intake administration of Carbo medicinalis; only after intubation conduct of gastrolavage in application of Carbo medicinalis; in case of

cramps administration of Diazepam 20 mg intravenously.

For the wording of the listed risk phrases refer to section 16.

Symptoms in intoxication with (aromatic) hydrocarbons (dosis letalis about 30 g) a) In acute intoxication: headache, dizziness, euphoria, gastro-intestinal

dysfunction, state of excitement, coma.

b) In chronic intoxication: myelotoxic damage, fatigue, dizziness, emaciation,

cardiac palpitation after physical exercise, leucopenia, anemia, leukosis.

 Most important symptoms and effects, both acute and delayed

Headache Dizziness Dizziness

Gastric or intestinal disorders

Nausea Coughing Profuse sweating

Danger of impaired breathing.

(Contd. on page 4)



(Contd. of page 3)

Safety Data Sheet

Printing date 01/22/2014 Reviewed on 01/22/2014

Trade name: Lettering Colour Spray Antique Gold

 Indication of any immediate medical attention and special

treatment needed

If swallowed, gastric irrigation with added, activated carbon.

If swallowed or in case of vomiting, danger of entering the lungs.

5 Fire-fighting measures

· Extinguishing media

· Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or

alcohol resistant foam.

- For safety reasons unsuitable

extinguishing agents:

Water with full jet

· Special hazards arising from the

substance or mixture

In case of fire, the following can be released:

Carbon monoxide (CO)

Formation of toxic gases is possible during heating or in case of fire. In certain fire conditions, traces of other toxic gases cannot be excluded.

· Advice for firefighters

• Protective equipment: Wear self-contained respiatory protective device.

6 Accidental release measures

· Personal precautions, protective

equipment and emergency

procedures
Environmental processions

Wear protective equipment. Keep unprotected persons away.

• Environmental precautions: Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage

system.

Do not allow to enter sewers/ surface or ground water.

Methods and material for

containment and cleaning up: Dispose of the col

Dispose of the collected material according to regulations.

Ensure adequate ventilation.

• Reference to other sections See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

· Handling:

• Precautions for safe handling Keep away from heat and direct sunlight.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier

than air).

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

· Information about protection

against explosions and fires: Fumes can combine with air to form an explosive mixture.

Do not spray on a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.

· Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by

storerooms and receptacles: Store in a cool location.

Observe official regulations on storing packagings with pressurized containers.

(Contd. on page 5)



(Contd. of page 4)

Safety Data Sheet acc. to OSHA HCS

Printing date 01/22/2014 Reviewed on 01/22/2014

Trade name: Lettering Colour Spray Antique Gold

· Information about storage in one

common storage facility: Not required.

Further information about storage

conditions:

Keep receptacle tightly sealed. Do not gas tight seal receptacle.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

· Specific end use(s)

No further relevant information available.

8 Exposure controls/personal protection

· Additional information about

design of technical systems: No further data; see item 7.

· Control parameters

- (Component	s with	limit v	values	that	require	monitorin	g a	t the	workp	lace:

67-64-1 acetone

Long-term value: 2400 mg/m³, 1000 ppm **REL** Long-term value: 590 mg/m³, 250 ppm

TLV Short-term value: (1782) NIC-1187 mg/m3, (750) NIC-500 ppm Long-term value: (1188) NIC-475 mg/m³, (500) NIC-200 ppm

BEI

123-86-4 n-butyl acetate

PEL Long-term value: 710 mg/m³, 150 ppm **REL** Short-term value: 950 mg/m³, 200 ppm Long-term value: 710 mg/m³, 150 ppm TLV Short-term value: 950 mg/m³, 200 ppm Long-term value: 713 mg/m³, 150 ppm

106-97-8 butane

REL Long-term value: 1900 mg/m³, 800 ppm TLV Short-term value: 2370 mg/m³, 1000 ppm

115-10-6 dimethyl ether

WEEL Long-term value: 1000 ppm

74-98-6 propane

PEL Long-term value: 1800 mg/m³, 1000 ppm Long-term value: 1800 mg/m³, 1000 ppm REL TLV refer to Appendix F: minimal oxygen content

108-65-6 2-methoxy-1-methylethyl acetate

WEEL Long-term value: 50 ppm

· Ingredients with biological limit values:

67-64-1 acetone

BEI 50 mg/L

Medium: urine Time: end of shift

Parameter: Acetone (nonspecific)

· Additional information: The lists that were valid during the creation were used as basis.

- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic

measures:

Do not eat, drink, smoke or sniff while working.

Use skin protection cream for skin protection.

(Contd. on page 6)



Printing date 01/22/2014 Reviewed on 01/22/2014

Trade name: Lettering Colour Spray Antique Gold

(Contd. of page 5)

Be sure to clean skin thoroughly after work and before breaks.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· Breathing equipment: Filter A/P2

Protection of hands:

Use suitable respiratory protective device in case of insufficient ventilation.

Preventive skin protection by use of skin-protecting agents is recommended.

After use of gloves apply skin-cleaning agents and skin cosmetics.

The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived decree EN374, respectively, e.g. the above listed protection glove type. The mentioned permeation times' data were generated and verified with material samples of the recommended protection glove type in the scope of laboratory anylyses of the company KCL GmbH in compliance with EN374.

This recommendation refers exclusively to the material safety data sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: http://www.kcl.de).



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves Nitrile rubber, NBR

> The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked

prior to the application.

· Penetration time of glove material Value for the permeation: Level ≤ 1 , 10 min

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· For the permanent contact gloves made of the following materials are suitable:

Nitrile rubber, NBR

Camatril (KCL, Art No. 730, 731, 732, 733)

 As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, NBR

Camatril (KCL, 730, 731, 732, 733)

· Not suitable are gloves made of the following materials:

Natural rubber, NR Strong gloves Leather gloves

· Eye protection:



Tightly sealed goggles

(Contd. on page 7)



Safety Data Sheet

Protective work clothing

Printing date 01/22/2014 Reviewed on 01/22/2014

<u>Trade name:</u> Lettering Colour Spray Antique Gold

(Contd. of page 6)

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Body protection:

· Appearance:

Form:
Color:
Odor:
Aerosol
Gold colored
Characteristic

PH-value:
Not applicable

· Change in condition

Melting point/Melting range: Undetermined. Boiling point/Boiling range: -44 °C (-47 °F)

· Flash point: -97 °C (-143 °F)

· <u>Ignition temperature:</u> 235 °C (455 °F)

· <u>Auto igniting:</u> Product is not selfigniting.

• Danger of explosion: In use, may form flammable/explosive vapour-air mixture.

· Explosion limits:

<u>Lower:</u> 1.5 Vol % Upper: 18.6 Vol %

· Vapor pressure at 20 °C (68 °F): 8300 hPa (6226 mm Hg)

Density at 20 °C (68 °F): 0.79 g/cm³ (6.593 lbs/gal)

· Specific gravity at 20 °C (68 °F): 0.79 g/cm³ (6.593 lbs/gal)

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· Viscosity:

Dynamic: Not determined.
Not applicable
Kinematic: Not determined.

Not applicable

· Solvent content:

Organic solvents: 60.0 %

· Other information No further relevant information available.

10 Stability and reactivity

· Reactivity

· Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

· Possibility of hazardous

reactions

No dangerous reactions known.

Conditions to avoid
 Incompatible materials:
 No further relevant information available.
 No further relevant information available.

· Hazardous decomposition

products:

No dangerous decomposition products known.

(Contd. on page 8)



Printing date 01/22/2014 Reviewed on 01/22/2014

Trade name: Lettering Colour Spray Antique Gold

(Contd. of page 7)

11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

· Primary irritant effect:

on the skin:on the eye:No irritant effect.Irritating effect.

Sensitization: No sensitizing effects known.

· Additional toxicological

information: The product shows the following dangers according to internally approved

calculation methods for preparations:

Irritant

Carcinogenic categories

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

12 Ecological information

· Toxicity

Aquatic toxicity: No further relevant information available.
 Persistence and degradability
 No further relevant information available.

· Behavior in environmental systems:

Bioaccumulative potential
 Mobility in soil
 No further relevant information available.
 No further relevant information available.

· Additional ecological information:

• General notes: Do not allow undiluted product or large quantities of it to reach ground water,

water course or sewage system.

Water hazard class 1 (Self-assessment): slightly hazardous for water

· Results of PBT and vPvB assessment

PBT: Not applicable.√PvB: Not applicable.

• Other adverse effects No further relevant information available.

13 Disposal considerations

· Waste treatment methods

• Recommendation: Must not be disposed of together with household garbage. Do not allow product

to reach sewage system.

Uncleaned packagings:

· Recommendation: Empty contaminated packagings thoroughly. They can be recycled after

thorough and proper cleaning.

· Recommended cleansing agent: Alcohol

acetone

14 Transport information

· UN-Number

DOT, ADR, IMDG, IATA UN1950

· UN proper shipping name

DOT Aerosols, flammableADR 1950 Aerosols

(Contd. on page 9)



Printing date 01/22/2014 Reviewed on 01/22/2014

Trade name: Lettering Colour Spray Antique Gold

(Contd. of page 8)

· IMDG **AEROSOLS**

· IATA AEROSOLS, flammable

· Transport hazard class(es)

· DOT



2.1 · Class · Label 2.1

· ADR



2 5F Gases · Class 2.1

· Label

· IMDG, IATA



2.1 · Class · Label 2.1

· Packing group

· DOT, ADR, IMDG, IATA Void

· Environmental hazards:

· Marine pollutant: No

· Special precautions for user Warning: Gases

· Danger code (Kemler):

- EMS Number: F-D,S-U

· Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

· UN "Model Regulation": UN1950, Aerosols, 2.1

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

(Contd. on page 10)



Printing date 01/22/2014 Reviewed on 01/22/2014

Trade name: Lettering Colour Spray Antique Gold

(Contd. of page 9)

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

67-64-1 acetone

1

· TLV (Threshold Limit Value established by ACGIH)

67-64-1 acetone

A4

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Product related hazard

informations:

The product has been classified and marked in accordance with directives on hazardous materials.

· Hazard symbols:





Xi Irritant

F+ Extremely flammable

• Risk phrases: Extremely flammable.

Irritating to eyes.

Repeated exposure may cause skin dryness or cracking

Vapours may cause drowsiness and dizziness

· Safety phrases: Keep out of the reach of children.

Keep container in a well-ventilated place.

Keep away from sources of ignition - No smoking.

Do not breathe vapour/spray. Avoid contact with skin and eyes.

In case of contact with eyes, rinse immediately with plenty of water and seek

medical advice.

Do not empty into drains, dispose of this material and its container at hazardous

or special waste collection point

Take precautionary measures against static discharges.

Wear suitable gloves and eye/face protection.

In case of insufficient ventilation, wear suitable respiratory equipment.

If swallowed, seek medical advice immediately and show this container or label.

Use only in well-ventilated areas.

Special labeling of certain

preparations:

Pressurized container: protect from sunlight and do not expose to temperatures

exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material. Buildup of explosive mixtures possible without sufficient ventilation.

· National regulations:

· Information about limitation of use: Employment restrictions concerning young persons must be observed.

(Contd. on page 11)



Printing date 01/22/2014 Reviewed on 01/22/2014

Trade name: Lettering Colour Spray Antique Gold

(Contd. of page 10)

Employment restrictions concerning pregnant and lactating women must be

observed.

Water hazard class 1 (Self-assessment): slightly hazardous for water. · Water hazard class:

 VOC USA 503.6 g/l / 4.20 lb/gl

A Chemical Safety Assessment has not been carried out. · Chemical safety assessment:

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing MSDS: Laboratory

· Contact: Dieter Zimmermann

Elke Hake

Fon ++49 (0)911 64296-59 @mail E.Hake@akemi.de

· Date of preparation / last revision 01/22/2014 / -

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de · Abbreviations and acronyms:

fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European

Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)