

Safety data sheet According to 91/155/EEC

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Printing date: 12/2012

1 Description of material/preparation and company

- Product data

- Trade name Kipp-PUR Surface Paint Comp. A
- Order number: 1040

- Manufacturer/supplier:

Kipp GmbH Markierungssysteme, Murrstraße 1, D-70806 Kornwestheim Tel.
+49 (0)7154 / 8242-0, Fax +49 (0)7154 8242-10, mail: info@kipp-line.de

- Informing department: Kipp GmbH, Tel. +49 (0)7154 / 8242-0
- Emergency information: Poison control centre in Berlin: Tel. 030 / 19240, Fax 030 / 30686-799

2 Composition / constituent data

- Chemical characteristics

- Description: Mixture made of the following substances with harmless additives. Harmful constituents:

123-86-4	n-butyl acetate	10-25 %	F; R 10
1330-20-7	Xylene (mixed isomers)	2.5-10 %	Xn; R 10-20/21-38
108-65-6	2-methoxy-1-methyl-ethyl-acetate	2.5-10 %	Xi; R 10-36
64742-95-6	Solvent naphtha (crude oil) light aromatic	2.5-10 %	Xn; R 65

3 Possible hazards

- Hazard designation: not applicable
- Specific hazard warnings for persons and the environment: R 10 inflammable
- Classification system: Classification corresponds to the current EC lists; however amendments have been made including data from technical literature and information provided by the company.

4 First-aid measures

- General notes: Clothing contaminated with the product must be removed immediately.
- After inhalation: Fresh air supply; consult a doctor in case of health problems.
- After skin contact: The product is in general not skin irritating.
- After eye contact: Rinse the eyes with the eyelid open under running water for several minutes. Seek medical advice in case of ongoing problems.
- After swallowing: Do not induce vomiting; immediately call a doctor.

5 Fire fighting measures

- Suitable extinguishing agents: CO₂, extinguishing powder or water spray jet. Fight major fires with water spray jet or alcohol-resistant foam.
- Extinguishing agents unsuitable due to safety reasons: Full jet water.
- Specific protective equipment: No specific measures required

6 Measures to be taken in case of unintended release:

- Personal precautionary measures: Wear protective clothing Keep away unprotected persons.
- Environmental measures: Do not allow any substance to reach the sewage system / surface water / ground water.
- Cleaning/absorption procedure: With liquid-binding material (sand, diatomaceous earth, binding agent for acids, universal binding agent, saw dust).

Provide adequate ventilation.
Do not rinse with water or diluted cleaning agents.

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7 Handling and storage

- Handling:
- Instructions for safe handling: Provide adequate ventilation / exhaustion at the workplace Avoid the formation of aerosol.
- Instructions for fire and explosion protection: Keep away from ignition sources - do not smoke. Take measures against electrostatic charge.
- Storage:
- Requirements for storage rooms and containers: No special requirements.
- Instructions for storing together Not required
- Further information on storage conditions: Keep containers tightly closed.
- Storage class: VbF (German Regulation for Combustible Liquids) class: A II

8 Exposition limitations and personal protective equipment

- Additional instructions for the design of technical systems: No further information, see paragraph 7.
- Constituents with workplace-related limits which require monitoring:
- 105-46-4 sec-butyl acetate
MAK: exposed (was 950) mg/m³, 200 ml/m³
I 12-21
MAK (TRGS 900): 950 mg/m³, 200 ml/m³
- 1330-20-7 xylene (mixed isomers) MAK: 440 mg/m³, 100 ml/m³
II, 1 D 7-9 see paragr.
MAK (TRGS 900): 440 mg/m³, 100 ml/m³
- 108-65-6 2-methoxy-1-methyl-ethyl-acetate
MAK: 275 mg/m³, 50 ml/m³
I C
MAK (TRGS 900): 275 mg/m³, 50 ml/m³
- Additional notes: The lists applicable for compilation were taken as a basis.
- Personal protective equipment:
- General protective and hygienic measures:
Wash your hands before making a break and when finishing your work.
- Breathing protection: Not required if adequate room ventilation is provided. If the solvent agent concentration is above the MAK limits, you must wear a breathing apparatus which is approved for this purpose. Use a respiration filter unit for short-term or low exposure, and a self-contained breathing apparatus for intensive and/or longer exposure.
A/P2 filter.
- Hand protection: Gloves / resistant to solvents.
- Eye protection: Wear goggles to protect you eyes against solvent splashes.

9 Physical and chemical properties

- Form: liquid
- Colour: according to product description
- Odour: characteristic
- Value/range Unit Method
- Change of state
- Melting point / melting range: Not specified
- Boiling point / boiling range: 112 ° C
- Flashing point: 24 ° C
- Ignition temperature: 315 ° C
- Self-ignition: The product is not self-igniting.
- Explosion hazard: The product is not explosive; however, explosive steam/air mixtures might be generated.
- Solubility in / mixture with water: not or only a little mixable:
- pH value: not specified
- Viscosity: kinematic: at 20 ° C 100 s(4 mm) DIN 53211

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10 Stability and reactivity

- Thermal decay / conditions to be avoided:
Stable if recommended provisions regarding storage and handling are observed (see chapter 7).
- Hazardous reactions: with strong acids, strong leaches, strong oxidants.
- Dangerous products of decay: Dangerous products of decay such as carbon dioxide, carbon monoxide and smoke may be generated at high temperatures.

11 Toxicology data

- Acute toxicity:
LD/LC50 values which are relevant for categorisation:
64742-95-6 solvent naphtha (crude oil), light aromatic
Oral: LD50: >6800 mg/kg (rat) Dermal: LD50: >3400 mg/kg (rab) Inhalative: LC50/4 h: >10.2 mg/l (rat)
- Primary irritation:
- on the skin: No irritation
- in the eye: No irritation
- Sensitisation: No sensitising effects known

12 Ecological data

- General notes:
Water hazard class 2 (self-classification): hazardous to waters
Do not allow to reach the groundwater, inshore waters or the sewage system. Even low amounts reaching the underground may be hazardous to the drinking water.

13 Disposal instructions

- Product:
- Recommendation:
Do not dispose of with the household garbage. Do not allow to reach the sewage system.
- Waste key number:
The EWC provides different key numbers for same waste of different origin. Waste generators must allocate their waste according to industries and processes. Key numbers which might be provided for this purpose only offer one of several options.

Recommendation: 080102 (Waste originating from the production, preparation, sales and application of paint and lacquer. Used paint and lacquer which do not contain any halogenated solvents.)
- Unclean packaging:
- Recommendation:
Recycle only completely emptied containers. Containers still containing residues must be disposed of at a collection point for used lacquer or by a waste management company according to the official regulations.

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14 Transport data

- Overland transport: (ADR/RID)
- UN number: 1263
- Class: 3
- Classification code: F1
- Packing group: III
- Hazard label 3
- Description of the commodity Colour

- Sea transport: (IMDG)
- IMDG code class: 3
- UN no.: 1263
- Packing group: III
- Marine pollutant: No
- Proper shipping name Paint

- Air transport (ICAO-TI and IATA-DGR)
- Class or division: 3
- UN/ID number: 1263
- Packing group: III
- Proper shipping name Paint

15 Regulations

- Labelling according to EEC directives:
The product is classified and labelled according to EC directives on hazardous substances.

- Risk phrases: 10 Inflammable

- Safety phrases:
23 Do not inhale steam/aerosol
25 Avoid eye contact
51 Only use in adequately ventilated areas
62 Do not induce vomiting when swallowed. Seek medical advice immediately and show packaging or this label.

- National provisions: VbF classification A II

- Technical air constructions: Class II 10-25 %, class III 10-25 %

- Water hazard class: Water hazard class 2 (self-classification): hazardous to waters

16 Miscellaneous:

Any information is based on the current status of knowledge; however it is no assurance of product properties and does not justify a contractual legal relationship.

- Contact person: Kipp GmbH, Tel.: +49 (0)7154 / 8242-0

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1 Description of material/preparation and company

- Product data
- Trade name Kipp-PUR Surface Paint Comp. B
- Order number: 1040
- Manufacturer/supplier:
Kipp GmbH Markierungssysteme, Murrstraße 1, D-70806 Kornwestheim Tel.
+49 (0)7154 / 8242-0, Fax +49 (0)7154 8242-10, mail: info@kipp-line.de
- Informing department: Mister Kipp, Mister Blum, Tel. +49 (0)7154 / 8242-0
- Emergency information: Poison control centre in Berlin: Tel. 030 / 19240, Fax 030 / 30686-799

2 Composition / constituent data

- Chemical characteristics
 - Description:
Mixture made of the following substances with harmless additives. Harmful constituents:
- | | | | |
|------------|----------------------------------|----------|------------------------|
| 28182-81-2 | Aliphatic poly isocyanate | 50-100 % | Xi; R 43 |
| 108-65-6 | 2-methoxy-1-methyl-ethyl-acetate | 10-25 % | Xi; R 10-36 |
| 822-06-0 | Hexa-methylene-1.6-di-isocyanate | 0.1-1 % | T; R 23-36/37/38-42/43 |

3 Possible hazards

- Hazard designation: Xi-irritating
- Specific hazard warnings for persons and the environment: R 10 inflammable
R36 Eye irritating
R43 Possible sensitisation by skin contact
Contains isocyanates. Observe the manufacturer's instructions.
- Classification system:
Classification corresponds to the current EC lists; however amendments have been made including data from technical literature and information provided by the company.

4 First-aid measures

- General notes: Clothing contaminated with the product must be removed immediately.
- After inhalation: Provide adequate fresh air and seek medical advice as a precaution.
- After skin contact: Remove product mechanically. Immediately clean with water and soap and rinse well.
- After eye contact: Rinse the eyes with the eyelid open under running water for several minutes and seek medical advice.
- After swallowing: Consult a doctor.

5 Fire fighting measures

- Suitable extinguishing agents
CO₂, extinguishing powder or water spray jet. Fight major fires with water spray jet or alcohol-resistant foam.
- Extinguishing agents unsuitable due to safety reasons: Full jet water.
- Special hazards caused by the material, its combustion products or gases generated: The following substances may be released in case of fire:
Nitric oxides (NO_x), carbon monoxides (CO)
Under certain fire conditions, traces of poisonous substances cannot be ruled out, e.g. isocyanate vapours, traces of cyan hydrogen
- Specific protective equipment: Wear self-contained breathing apparatus.

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6 Measures to be taken in case of unintended release:

- Personal precautionary measures:
Wear protective clothing Keep away unprotected persons.
- Environmental measures:
Do not allow any substance to reach the sewage system / surface water / ground water.
- Cleaning/absorption procedure:
With liquid-binding material (sand, diatomaceous earth, binding agent for acids, universal binding agent, saw dust). Fill into waste containers; do not close (generation of CO₂). Keep moist and at a safe place in the open air for several days. Further disposal by burning in a suitable incinerating plant.

7 Handling and storage

- Handling:
- Instructions for safe handling: Provide adequate ventilation / exhaustion at the workplace
- Instructions for fire and explosion protection:
Keep away from ignition sources - do not smoke. Take measures against electrostatic charge.
- Storage:
- Requirements for storage rooms and containers: No special requirements.
- Instructions for storing together Not required
- Further information on storage conditions: Keep the container at a well ventilated place.
Store in well sealed containers in a cool and dry place.
- Storage class: VbF (German Regulation for Combustible Liquids) class: A II

8 Exposition limitations and personal protective equipment

- Additional instructions for the design of technical systems: No further information, see paragraph 7.
- Constituents with workplace-related limits which require monitoring:
108-65-6 2-methoxy-1-methyl-ethyl-acetate
MAK: 275 mg/m³, 50 ml/m³
I C
MAK (TRGS 900): 275 mg/m³, 50 ml/m³
822-06-0 Hexa-methylene-1.6-di-isocyanate
MAK: 0.035 mg/m³, 0.005 ml/m³
I IIc 0.007
MAK (TRGS 900): 0.07 mg/m³, 0.01 ml/m³
- Additional notes:
The lists applicable for compilation were taken as a basis.
- Personal protective equipment:
- General protective and hygienic measures:
Keep away from food, beverage and feeding stuff. Keep protective clothing separately.
Immediately take off contaminated and soaked clothing.
Wash your hands before making a break and when finishing your work. Avoid eye and skin contact.
- Breathing protection: Not required if adequate room ventilation is provided. If the solvent agent concentration is above the MAK limits, you must wear a breathing apparatus which is approved for this purpose. Use a respiration filter unit for short-term or low exposure, and a self-contained breathing apparatus for intensive and/or longer exposure.
A/P2 filter.
Do not handle this product in case of existing hypersensitivity of the respiratory tract (asthma, chronic bronchitis).
- Hand protection: Gloves made of rubber or gloves made of PVC.
- Eye protection: Tightly fitting goggles.
- Body protection: Protective clothing

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9 Physical and chemical properties

- Form: liquid
- Colour: yellowish
- Odour: solvent-like
- Value/range Unit Method
- Change of state

- Melting point / melting range -46 ° C
- Boiling point / boiling range: 150 ° C
- Flashing point: 54 ° C DIN 53213/1
- Ignition temperature: 425 ° C DIN 51794
- Self-ignition: The product is not self-igniting.
- Explosion hazard: The product is not explosive; however, explosive steam/air mixtures might be generated.
- Explosive limits: lower limit: 1.5 Vol %
upper limit: 10.8 Vol %
- Steam pressure: at 20 ° C 5 mbar OECD no. 104
- Density: at 20 ° C 1.07 g/cm³ DIN 53217/2
- Solubility in / mixture with water: not or a little mixable
- pH value: not specified
- Viscosity:
- dynamic: at 20 ° C 250 mPas DIN..3219/A3
- kinematic: at 20 ° C 79 s DIN 2431/5mm

10 Stability and reactivity

- Thermal decay / conditions to be avoided:
Stable if recommended provisions regarding storage and handling are observed (see chapter 7).
- Hazardous reactions: Reaction with alcohols, reaction with amines.
Gradual hydrolysis in case of water ingress and generation of carbon dioxide. Due to pressure increase, sealed containers might burst.
- Dangerous products of decay: Carbon dioxide
In case of fire: see chapter 5

11 Toxicology data

- Acute toxicity:
LD/LC50 values which are relevant for categorisation: Oral: LD50: >5000 mg/kg (rat)
- Primary irritation:
- on the skin: No irritation
- in the eye: Irritations
- Sensitisation: Possible sensitisation by skin contact.
- Other information (regarding experimental toxicology):
In case of excessive exposure - in particular when spraying without taking precautionary measures - eyes, nose, throat and the respiratory tract might be irritated depending on the concentration of toxic substances. Health problems might occur temporarily delayed and hypersensitivity (breathing problems, coughing, asthma) might be developed. Hypersensitive persons might react even to very low concentrations of isocyanate which are beyond the MAK value. Tanning and irritation might occur after a longer skin contact.
- Additional toxicological notes:
On the basis of the calculation procedure for General EC Categorisation Guidelines for Preparations in their latest version, the product possesses the following hazards:

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12 Ecological data

- Eco-toxic effects: Aquatic toxicity:
 EC50 (OECD 209): 100-1000 mg/l (bacteria)
 LC0 (96 h): 8.8 mg/l (Brachydanio rerio (zebra danio) LC100 (96 h): 25.0 mg/l (Brachydanio rerio (zebra danio))
- General notes:
 Water hazard class 2 (self-classification): hazardous to waters
 Do not allow to reach the groundwater, inshore waters or the sewage system. Even low amounts reaching the underground may be hazardous to the drinking water.
 The solvent is water-soluble. Together with water, resin transforms into a solid, insoluble and highly-melting poly urea adduct which generates carbon dioxide.

13 Disposal instructions

- Product:
- Recommendation:
 Do not dispose of with the household garbage. Do not allow to reach the sewage system.
- Waste key number:
 The EWC provides different key numbers for same waste of different origin. Waste generators must allocate their waste according to industries and processes. Key numbers which might be provided for this purpose only offer one of several options.
 Recommendation: 080102 (Waste originating from the production, preparation, sales and application of paint and lacquer. Used paint and lacquer which do not contain any halogenated solvents.)
- Unclean packaging:
- Recommendation:
 Recycle only completely emptied containers. Containers still containing residues must be disposed of at a collection point for used lacquer or by a waste management company according to the official regulations.
- Recommended detergent:
 Treat adhering product residues with an isopropyl-ammoniac-water mixture in order to render isocyanates harmless. Then remove the labels.

14 Transport data

- Overland transport: (ADR/RID)
- UN number: 1866
- Class: 3
- Classification code: F1
- Packing group: III
- Hazard label 3
- Description of the commodity Resin solution

- Sea transport: (IMDG)
- IMDG code class: 3
- UN no.: 1866
- Class: 3
- Packing group: III
- Marine pollutant: No
- Proper shipping name: Resin solution

- Air transport: (ICAO-TI and IATA-DGR)
- Class or division: 3
- UN/ID number: 1866
- Packing group: III
- Proper shipping name: Resin solution

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15 Regulations

- Labelling according to EEC directives:
The product is classified and labelled according to EC directives on hazardous substances.
- Code letter and hazard designation of the product Xi-irritating
- Hazard-determining components for labelling: Aliphatic poly-isocyanate
- Risk phrases:
 - 10 Inflammable
 - 36 Eye irritating
 - 43 Possible sensitisation by skin contact
- Safety phrases:
 - 24/25 Avoid eye and skin contact.
 - 51 Only use in adequately ventilated areas
- Special labelling of certain preparations: Contains isocyanates. Observe the manufacturer's instructions.
- National provisions:
- VbF classification: A II
- Technical air constructions: Class III 10-25 %
- Water hazard class: Water hazard class 2 (self-classification): hazardous to waters
- to be observed:
Information provided by CEPE (European Council of the Paint, Printing Ink and Artists' Colours Industry): Painting materials ready for processing which contain isocyanates, may irritate the mucous membranes, in particular the respiratory tract, and cause hypersensitivity reactions. Risk of sensitising when inhaling spray mist or vapours. Any precautionary measures regarding solvent-containing paint material must be observed. In particular it is important to avoid the inhalation of spray mist and vapours. People suffering from allergies and asthma or who are sensitive to diseases of the respiratory tract must not work with isocyanate-containing paint.
Leaflet of the German Employers' Liability Insurance Association:
M 044 „Production of polyurethane/isocyanates“ and M 017 „Solvents“

16 Miscellaneous

- Any information is based on the current status of knowledge; however it is no assurance of product properties and does not justify a contractual legal relationship.
- Contact person: Kipp GmbH, Tel.: +49 (0)7154 8242-0