

Material Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 08.08.2007

Revision: 31.07.2007

1 Identification of substance

- **Product details**
- Trade name **Arti Top M**
- **Article number:** 6740
- **Application of the substance / the preparation** Sealing
- **Manufacturer/Supplier:**
Remmers Baustofftechnik GmbH
Postfach 1255
D-49624 Lönningen / Germany
Tel.: 05432/83-0
Fax: 05432/3985
- **Informing department:**
Product Safety department: Tel.: +49 (0)5432/83-138/-538
E-Mail: sales@remmers.co.uk
- **Emergency information:**
during working hours:
U.K.: Tel.: +44 (0) 845 373 0103
Far East: Tel.: +65(0) 67410277
Head Office Germany: Tel.: +49 (0)5432 83 185
after working hours: Tel.: +49 (0)171/6428-297

2 Hazards identification

- **Hazard designation:**



Xi Irritant

- **Information pertaining to particular dangers for man and environment**
R 43 May cause sensitisation by skin contact.
Contains isocyanates. See information supplied by the manufacturer
- **Classification system**
The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Resin mixture.

- **Dangerous components:**

CAS: 28182-81-2	aliphatic polyisocyanate	Xi; R 43	30-60%
CAS: 872-50-4 EINECS: 212-828-1	N-methyl-2-pyrrolidone	Xi; R 36/38	1-3%

- **Additional information** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- **General information**
Immediately remove any clothing soiled by the product.

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In case of irregular breathing or respiratory arrest, provide artificial respiration.

Call a doctor immediately.

· **After inhalation**

Supply fresh air and call for doctor for safety reasons.

In case of unconsciousness bring patient into stable side position for transport.

· **After skin contact**

Wash immediately with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.

· **After swallowing** Drink plenty of water and provide fresh air. Call a doctor immediately.

· **Information for doctor**

· **Treatment** symptomatic treatment

5 Fire fighting measures

· **Suitable extinguishing agents**

Carbon dioxide

Foam

Fire-extinguishing powder

For larger fires also sprayed water.

· **For safety reasons unsuitable extinguishing agents** Water with a full water jet.

· **Special hazards caused by the material, its products of combustion or flue gases:**

May be released in case of fire

Carbon monoxide (CO)

Carbon dioxide

Nitrogen oxides (NOx)

Isocyanate fumes

Hydrogen cyanide (HCN)

(Traces)

further harmful conflagration gases and fumes

· **Protective equipment:**

Wear self-contained breathing apparatus.

Wear full protective suit.

· **Additional information**

Cool endangered containers with water spray jet.

Collect contaminated fire fighting water separately. It must not enter drains.

Ensure adequate means of retaining the water used for extinguishing

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

· **Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources

Ensure adequate ventilation

· **Measures for environmental protection:**

Do not allow product to reach sewage system or water bodies.

Do not allow to enter the ground/soil.

· **Measures for cleaning/collecting:**

Remove mechanically: Cover remains with damp, liquid-binding material (e.g. sawdust, chemical binders on a calcium silicate-hydrate base, sand). After approx. 1 hour, take up and place in refuse container. Do not close (CO₂-development!) Keep damp and allow to stand in a safe place outdoors for several days.

Ensure adequate ventilation.

· **Additional information:** See Section 13 for information on disposal.

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7 Handling and storage

- **Handling**
- **Information for safe handling:**
Use only in well ventilated areas.
Ensure good ventilation, if necessary extract air in work places.
Avoid the formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Fumes can combine with air to form an explosive mixture.
- **Storage**
- **Requirements to be met by storerooms and containers:**
Store only in the original container.
Prevent any penetration into the ground.
- **Information on storage in a common storage facility:**
Suitable material for containers and pipes: Light metals and their alloys.
- **Further information about storage conditions:**
Store cool and dry in tightly closed containers.
Store container in a well ventilated position.
Protect from humidity and keep away from water.
Protect from heat and direct sunlight.
Protect from frost.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** Use only in well-ventilated areas.

- **Components with limit values that require monitoring at the workplace:**

872-50-4 N-methyl-2-pyrrolidone

WEL	Short-term value: 309 mg/m ³ , 75 ppm
	Long-term value: 103 mg/m ³ , 25 ppm
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- **Additional information:** The lists that were valid during compilation were used as a basis.
- **Personal protective equipment**
- **General protective and hygienic measures**
Immediately remove soiled, saturated clothing.
Store protective clothing separately.
Keep away from food, beverages and animal feed.
Use skin protection cream for preventive skin protection.
Wash hands before pauses and after work.
Avoid contact with eyes and skin.
Do not inhale gases / vapours / aerosols.
The handling of this product is not recommended for persons with respiratory system and skin hypersensitivity (asthma, chronic bronchitis, chronic skin disease).
- **Respiratory equipment:**
In case of insufficient ventilation, use respiratory protection:
Short term filter device:
Filter A/P2.
- **Protection of hands:** Protective gloves.
- **Material of gloves:** Nitrile rubber, NBR
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**
Tightly sealed safety glasses.
Face protection

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- **Body protection:** Protective work clothing.

9 Physical and chemical properties:

· General Information

Form:	Fluid
Colour:	transparent
Odour:	Nearly odourless

· Change in condition

Melting point/Melting range:	Not determined
Boiling point/Boiling range:	> 200°C

- **Flash point:** > 156°C

- **Ignition temperature:** 460°C

- **Self-inflammability:** Product is not self-igniting.

- **Danger of explosion:** Product is not explosive. However, formation of dangerous explosive vapour/air mixtures is possible.

- **Vapour pressure at 50°C:** ca. 0.0001 hPa

- **Density at 20°C** ca. 1.17 g/cm³

· Solubility in / Miscibility with

Water:	Not miscible or difficult to mix
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· Viscosity:

kinematic at 20°C:	1500 s (DIN 53211/4)
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10 Stability and reactivity

· Thermal decomposition / conditions to be avoided:

- No decomposition if used according to specifications.
- No decomposition if handled and stored according to specifications.

· Materials to be avoided:

- Amines
- Alcohols

· Dangerous reactions

- Exothermic reaction with amines and alcohols.
- With water carbon dioxide development, pressure build-up in closed containers.
- Danger of bursting

· Dangerous decomposition products:

- None if used properly.
- None if stored properly.

11 Toxicological information

· Acute toxicity:

· Primary irritant effect:

· on the skin:

- No irritating effect.
- Dries skin out.

· on the eye: No irritating effect.

- **Sensitisation:** Sensitisation possible by skin contact.

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- **Additional toxicological information:**

Special characteristics/effects of isocyanates:

In case of over-exposure - especially when spraying isocyanate based varnishes without protective measures - there is a danger of a concentration-dependent, irritating effect on eyes, nose, throat, and respiratory tract. The delayed appearance of symptoms and the development of hypersensitivity (trouble breathing, cough, asthma) are possible. For hypersensitive persons, reactions may be triggered by very low isocyanate concentrations, also below the TLV value. In case of prolonged contact with skin, tanning and irritating effects are possible.

- **Sensitisation** May cause sensitisation by skin contact.

12 Ecological information:

- **General notes:**

Water hazard class 1 : slightly hazardous to water.

Do not allow product to reach ground water, bodies of water or sewage system.

13 Notes on disposal:

- **Product:**

- **Recommendation**

Not hardened material must be disposed of as hazardous waste according to official regulations. Hardened product remains may be disposed of as building rubble or put into household garbage.

The given refuse codes are recommendations based upon the intended use of the product. Because of special use and disposal conditions at the user's, other codes may apply under other conditions.

- **European waste catalogue**

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01 00	wastes from MFSU and removal of paint and varnish
08 01 11	waste paint and varnish containing organic solvents or other dangerous substances
20 00 00	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01 00	separately collected fractions (except 15 01)
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27

- **Uncleaned packaging:**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **Land transport ADR/RID and GGVs/GGVE (cross-border/domestic)**

- **ADR/RID-GGVs/E Class:** -

- **Maritime transport IMDG/GGVSea:**

- **IMDG/GGVSea Class:** -

- **Air transport ICAO-TI and IATA-DGR:**

- **ICAO/IATA Class:** -

- **Transport/Additional information:** Not a hazardous good according to the above regulations.

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15 Regulatory information

- **Designation according to EC guidelines:**

The product has been classified and labelled in accordance with EC Guidelines / Ordinance on Hazardous Materials (GefStoffV)

- **Code letter and hazard designation of product:**



Xi Irritant

- **Hazard-determining components of labelling:**

aliphatic polyisocyanate

- **Risk phrases:**

43 May cause sensitisation by skin contact.

- **Safety phrases:**

24 Avoid contact with skin.

37 Wear suitable gloves.

- **Special labelling of certain preparations:**

Contains isocyanates. See information supplied by the manufacturer

- **National regulations**

- **Technical instructions (air):**

Class	Proportion in %
NK	2,5-<5

- **Water hazard class:**

Water hazard class 1: slightly hazardous to water.
according to appendix 4 VwVwS

- **Other regulations, limitations and prohibition ordinances**

From the European Committee of the Associations for varnish, printing ink and artistry paint producers - CEPE - the following information is given for isocyanate based coating materials:

Ready-to-use coating materials that contain isocyanates may have an irritating effect on mucous membranes - especially on respiratory organs - and cause hypersensitivity reactions. There is a risk of sensitization if vapours or sprayed mist are inhaled. When handling isocyanate based coating materials, all measures for solvent based coating materials must be strictly observed. Sprayed mist and vapours especially should not be inhaled.

Persons with allergies or asthma who have a tendency for respiratory tract ailments should not be allowed to work with isocyanate based coating materials.

- **Professional Association (BG) Code of Practice:**

M 044 "Polyurethane production/isocyanates"

M 004 "Irritating substances/corrosive substances"

16 Other information:

This data is based on our present state of knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally valid contractual relationship.
Delivery specifications are found in the respective Technical Information Sheets.

- **Relevant R-phrases**

36/38 Irritating to eyes and skin.

43 May cause sensitisation by skin contact.

- **Department issuing data specification sheet:** Product Safety department