

Safety data-sheet (91/155 EEC)

Printed 25.11.2002

Revision 25.11.2002 (GB) Version 1.1

TIP TOP HEATING SOLUTION S4, free of (*)

10156TE0109

**1. Identification of the substance/preparation**

Name of product	TIP TOP HEATING SOLUTION S4, free of (*) No. 538 1607, 538 1614, 538 1621
Manufacturer/distributor	STAHLGRUBER Otto Gruber GmbH & Co KG Gruber Straße 63, D-85586 Poing Phone ++49 / 81 21 / 707 - 0
Emergency advice Recommended use(s) Assembling solution	Phone ++49 / 81 21 / 707 - 0

2. Composition/information on ingredients**Chemical characterization**

*) chlorinated hydrocarbons

Preparation with ethyl acetate

Hazardous ingredients

CAS-No.	EC-No.	Name	[%]	Classification
000141-78-6	205-500-4	ethyl-acetate	< 70	F R11; Xi R36; R66; R67
092062-15-2	295-529-9	Solvent naphtha (petroleum)	< 25	F R11; N R51/53; Xn R65

3. Special hazards information for man and environment**R-phrases**

11	Highly flammable.
36	Irritating to eyes.
52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
66	Repeated exposure may cause skin dryness or cracking.
67	Vapours may cause drowsiness and dizziness.

4. First aid measures**General information**

Remove contaminated soaked clothing immediately.

If you feel unwell, seek medical advice.

Take away from danger area and lay down affected person.

In case of inhalation

Move to fresh air in case of accidental inhalation of vapours or decomposition products.

In the event of symptoms refer for medical treatment.

In case of skin contact

Wash off with soap and plenty of water.

Consult a doctor if skin irritation persists.

In case of eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Seek medical treatment by eye specialist.

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10156TE0109



In case of ingestion

Induce vomiting only upon the advice of a physician.
Attention! Beware, danger of aspiration!
Do not induce vomiting.
Summon a doctor immediately.

5. Fire-fighting measures

Suitable extinguishing material

Foam, carbon dioxide (CO₂), dry chemical, water-spray

Extinguishing material that may not be used for safety reasons

Full water jet

Special exposure hazards arising from the substance, combustible products or resulting gases

Fire may produce:
Carbon monoxide and carbon dioxide.

Special protective equipment for firefighters

Use breathing apparatus with independent air supply.

Additional information

Vapours are heavier than air and spread along ground.
The vapour/air mixture is explosive, even in empty, uncleaned receptacles.
Cool containers at risk with water spray jet.

6. Accidental release measures

Personal precautions

In case of vapour formation use respirator.
Use only explosion-proof equipment.
Ensure adequate ventilation.
Use personal protective clothing.
Keep away sources of ignition.

Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

Methods for cleaning up/taking up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
Shovel into suitable container for disposal.

7. Handling and storage

Advice on safe handling

Keep container tightly closed.
Vapours are heavier than air and spread along ground.
Keep a good ventilation and air-exhaust at the place of work.
Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion

Keep away from heat and sources of ignition.
Do not smoke.
Take precautionary measures against static discharges.
Use only explosion-proof equipment.

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10156TE0109

**Requirements for storage rooms and vessels**

Keep container tightly closed in a dry, cool and well-ventilated place.
Pay attention to anti-explosion rules.

Advice on storage compatibility

Incompatible with:
oxidizing agents
Nitrous acid and other nitrosating agents

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

8. Exposure controls / personal protection**Additional advice on system design**

Ensure adequate ventilation, especially in confined areas.

Ingredients with occupational exposure limits to be monitored

CAS-No.	Name	Code	[mg/m ³]	[ml/m ³]	Remark
000141-78-6	ethyl-acetate	TLV	-	200	

Respiratory protection

In case of insufficient ventilation wear suitable respiratory equipment (gas filter type A).

Hand protection

Splash protection:

Protective gloves resistant to chemicals made off butyl, Minimum coat thickness 0,7 mm, Permeation resistance (wear duration) approx. 120 minutes, i.e. protective glove <Butoject 898> made by KCL (e-mail: vertrieb@kcl.de)
Protective gloves resistant to chemicals made off nitrile, Minimum coat thickness 0.4 mm, Permeation resistance (wear duration) approx. 30 minutes, i.e. protective glove <Camatril Velours 730> made by KCL (e-mail: vertrieb@kcl.de)

This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions.

Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.

Eye protection

Eye wash bottle with pure water
Tightly fitting goggles

Skin protection

Long sleeved clothing.

General protective measures

Do not inhale vapours.
Wash hands before breaks and immediately after handling the product.
When using, do not eat, drink or smoke.
Treat subsequently with skin cream.
Avoid contact with skin, eyes and clothing.
Remove and wash contaminated clothes before re-use.

9. Physical and chemical properties

Form	Colour	Odour
liquid - viscous	black	ester-like

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Data relevant for safety					
	Value	Temperature	at	Method	Remark
Boiling point	ca. 76 °C				
Flash point	< -18 °C				
Combustion temperature	460 °C				
Lower explosion limit	0,6 Vol-%				
Density	0,9 g/ml	20 °C			
Solubility in water		20 °C			immiscible
Viscosity 1	> 120 s			4 DIN/ISO 2431	
Solvent concentration	< 90 %				

10. Stability and reactivity**Conditions to avoid**

To avoid thermal decomposition, do not overheat.
Vapour/air mixtures are explosive at intensive warming.
Heating can release vapours which can be ignited.

Materials to avoid

Nitrous acid and other nitrosating agents
Oxidizing agents.

Hazardous decomposition products

Carbon monoxide and carbon dioxide
An inappropriate handling, for instance major amounts of product combined with strong heat and nitrosating agents, renders possible a cleavage of nitrosamines in traces.

Additional information

No decomposition if stored and applied as directed.

11. Toxicological information**Experiences made from practice**

Irritating to eyes.
May cause irritation of the mucous membranes.
Effects of breathing high concentrations of vapour may include headache, dizziness, weakness, unconsciousness
Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.
Vapours may cause drowsiness and dizziness.
Repeated exposure may cause skin dryness or cracking.

Additional information

An inappropriate handling, for instance major amounts of product combined with strong heat and nitrosating agents, renders possible a cleavage of nitrosamines in traces.

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12. Ecological information**General regulation**

Do not flush into surface water or sanitary sewer system.
Slightly water contaminating.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. Disposal considerations**Waste code No.**

08 04 09*

Name of waste

waste adhesives and sealants containing organic solvents or other dangerous substances

Recommendations for the product

Where possible recycling is preferred to disposal.
Can be incinerated, when in compliance with local regulations.

Recommendations for packaging

Empty containers should be taken for local recycling, recovery or waste disposal.
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.
Packaging that cannot be cleaned should be disposed of like the product.

General information

Wastes marked with an asterisk (*) are considered to be hazardous waste pursuant to Directive 91/689/EEC on hazardous waste.

14. Transport information**Land and inland navigation transport (ADR/RID/GGVS/GGVE/ADNR)**

Identification	1133 ADHESIVES
UN-No.	1133
Class	3
PG	II
Hazard No.	33
Remarks	LQ 6: combination packaging: 5 l / 20 l; trays: 1 l / 20 l (20 kg total gross mass)

Marine transport IMDG/GGV See

Proper shipping name	ADHESIVES
UN-No.	1133
Class	3
PG	II
Marine pollutant	No
EmS-No.	3-05
Remarks	Limited quantities (chapter 3.4): combination packaging: 1 l / 30 kg (total gross mass); trays: 1 l / 20 kg (total gross mass)

Air transport ICAO/IATA

Proper shipping name	ADHESIVES
UN/ID-No.	1133
Class	3
PG	II

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**Remarks**

PAC 305 (5 L), CAC 307 (60 L)

15. Regulatory information**Remarks for classification**

According to EC-regulations the product is to be labelled as follows:

Classification

F Highly flammable
Xi Irritant

R-phrases

11 Highly flammable.
36 Irritating to eyes.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
66 Repeated exposure may cause skin dryness or cracking.
67 Vapours may cause drowsiness and dizziness.

S-phrases

16 Keep away from sources of ignition - No smoking.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
33 Take precautionary measures against static discharges.
35 This material and its container must be disposed of in a safe way.
61 Avoid release to the environment. Refer to special instructions/safety data sheets.

VOC standard

VOC content 85 %

16. Other information**Further information**

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product (s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

Wording of the R-phrases specified in chapter 2 (not the classification of the formulation!)

R 11 Highly flammable.
R 36 Irritating to eyes.
R 65 Harmful: may cause lung damage if swallowed.
R 66 Repeated exposure may cause skin dryness or cracking.
R 67 Vapours may cause drowsiness and dizziness.