

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/13/2013

Reviewed on 12/13/2013

1 Identification

- . **Product identifier**
- . **Trade name:** HT-110
- . **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- . **Application of the substance / the mixture** Adhesives
- . **Details of the supplier of the safety data sheet**
- . **Manufacturer/Supplier:**
Bison International
Dr.A.F.Philipsstraat 9
NL-4462 EW Goes
PO Box 160
NL-4460 AD Goes
tel. +31 88 3235700
fax. +31 88 3235800
e mail: msds@boltonadhesives.com
- . **Information department:** Bison QESH
- . **Emergency telephone number:** +31 88 3235700

2 Hazard(s) identification

- . **Classification of the substance or mixture**
 - . **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 -  Harmful
Harmful by inhalation. Limited evidence of a carcinogenic effect.
 -  Irritant
Irritating to eyes and respiratory system.
 -  Highly flammable
Highly flammable.
 - . **Information concerning particular hazards for human and environment:**
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.
 - . **Classification system:**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
-
- . **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:**
Harmful
Highly flammable
 - . **Hazard-determining components of labeling:**
tetrahydrofuran
cyclohexanone

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Risk phrases:

Highly flammable.
Harmful by inhalation.
Irritating to eyes and respiratory system.
Limited evidence of a carcinogenic effect.

Safety phrases:

Keep away from sources of ignition - No smoking.
Do not breathe vapour.
Avoid contact with eyes.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
If swallowed, seek medical advice immediately and show this container or label.
Use only in well-ventilated areas.

Special labeling of certain preparations:

Contains methyltinmercaptide. May produce an allergic reaction.

Classification system:

NFPA ratings (scale 0-4)



Health = 2
Fire = 3
Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Description: Adhesive

Dangerous components:

109-99-9 tetrahydrofuran	25-50%
108-94-1 cyclohexanone	25-50%
78-93-3 methyl ethyl ketone	10-25%
57583-35-4 methyltinmercaptide	≤ 2.5%

Additional information:

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

4 First-aid measures

Description of first aid measures

General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Generally the product does not irritate the skin.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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- . **After swallowing:** Do not induce vomiting; immediately call for medical help.
- . **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- . **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- . **Extinguishing media**
- . **Suitable extinguishing agents:**
Water haze
Alcohol resistant foam
Fire-extinguishing powder
Carbon dioxide
- . **For safety reasons unsuitable extinguishing agents:** Water with full jet
- . **Special hazards arising from the substance or mixture**
No further relevant information available.
- . **Advice for firefighters**
- . **Protective equipment:** Mount respiratory protective device.
- . **Additional information**
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- . **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- . **Environmental precautions:**
Prevent seepage into sewage system, workpits and cellars.
Do not allow to enter sewers/ surface or ground water.
- . **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
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

- . **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
- . **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- . **Conditions for safe storage, including any incompatibilities**
- . **Storage:**
- . **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- . **Information about storage in one common storage facility:** Not required.
- . **Further information about storage conditions:**
Keep receptacle tightly sealed.

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Store in cool, dry conditions in well sealed receptacles.

. **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**

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

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

. **Ingredients with biological limit values:**

109-99-9 tetrahydrofuran

BEI () 2 mg/L

Medium: urine

Time: end of shift

Parameter: Tetrahydrofuran

. **Additional information:**

The lists that were valid during the creation were used as basis.

. **Exposure controls**

. **Personal protective equipment:**

. **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

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 and skin.

. **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Suitable respiratory protective device recommended.

. **Protection of hands:**

Solvent resistant 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**

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**

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

. **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

PVC or PE gloves

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. Eye protection:



Tightly sealed goggles

. Body protection: Solvent resistant protective clothing

9 Physical and chemical properties

. Information on basic physical and chemical properties

. General Information

. Appearance:

Form:

Fluid

Color:

According to product specification

. Odor:

Characteristic

. Odour threshold:

Not determined.

. pH-value:

Not determined.

. Change in condition

Melting point/Melting range:

Undetermined.

Boiling point/Boiling range:

65 °C (149 °F)

. Flash point:

< 0 °C (< 32 °F)

. Flammability (solid, gaseous):

Not applicable.

. Ignition temperature:

230 °C (446 °F)

. Decomposition temperature:

Not determined.

. Auto igniting:

Product is not selfigniting.

. Danger of explosion:

Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

. Explosion limits:

Lower:

1.3 Vol %

Upper:

12.0 Vol %

. Vapor pressure at 20 °C (68 °F):

200 hPa (150 mm Hg)

. Density at 20 °C (68 °F):

0.97 g/cm³ (8.095 lbs/gal)

. Relative density

Not determined.

. Vapour density

Not determined.

. Evaporation rate

Not determined.

. Solubility in / Miscibility with

Water:

Not miscible or difficult to mix.

. Partition coefficient (n-octanol/
water):

Not determined.

. Viscosity:

Dynamic at 20 °C (68 °F):

500 mPas

Kinematic:

Not determined.

Organic solvents:

80.6 %

Solids content:

18.6 %

. Other information

No further relevant information available.

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* 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** No further relevant information available.
- . **Incompatible materials:** No further relevant information available.
- . **Hazardous decomposition products:** Danger of toxic pyrolysis products.

* 11 Toxicological information

- . **Information on toxicological effects**
- . **Acute toxicity:**
- . **LD/LC50 values that are relevant for classification:**
 - 109-99-9 tetrahydrofuran**
Oral LD50 3000 mg/kg (rat)
 - 108-94-1 cyclohexanone**
Oral LD50 1900 mg/kg (rat)
Dermal LD50 948 mg/kg (rbt)
Inhalative LC50/4 h 8000 mg/l (rat)
- . **Primary irritant effect:**
 - . **on the skin:** No irritant effect.
 - . **on the eye:** Irritating effect.
- . **Sensitization:** No sensitizing effects known.
- . **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Irritant
- . **Carcinogenic categories**
- . **IARC (International Agency for Research on Cancer)**
 - 108-94-1 cyclohexanone: 3
 - 68648-82-8 chlorinated polyvinyl chloride: 3
- . **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.
- . **Bioaccumulative potential** No further relevant information available.
- . **Mobility in soil** No further relevant information available.
- . **Additional ecological information:**
- . **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- . **Results of PBT and vPvB assessment**
- . **PBT:** Not applicable.
- . **vPvB:** Not applicable.

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. 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:

Disposal must be made according to official regulations.

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

14 Transport information

. UN-Number

. DOT, ADR, IMDG, IATA

UN1133

. UN proper shipping name

. DOT

Adhesives

. ADR

1133 Adhesives, special provision 640D

. IMDG, IATA

ADHESIVES

. Transport hazard class(es)

. DOT



. Class

3 Flammable liquids.

. Label

3

. ADR



. Class

3 (F1) Flammable liquids

. Label

3

. IMDG, IATA



. Class

3 Flammable liquids.

. Label

3

. Packing group

. DOT, ADR, IMDG, IATA

II

. Environmental hazards:

. Marine pollutant:

No

. Special precautions for user

Warning: Flammable liquids

. Danger code (Kemler):

33

. EMS Number:

F-E, S-D

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- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

Transport/Additional information:

IMDG

- Remarks:** Under certain conditions substances in Class 3 (flammable liquids) can be classified in packinggroup III. See IMDG, Part 2, Chapter 2.3, Paragraph 2.3.2.2

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture**
- SARA Section 355 (extremely hazardous substances)**
None of the ingredients is listed.
- SARA Section 313 (specific toxic chemical listings)**
78-93-3 methyl ethyl ketone
- TSCA (Toxic Substances Control Act)**
All ingredients are listed.
- Prop 65 - Chemicals known to cause cancer**
None of the ingredients is listed.
- Cancerogenity categories**
- EPA (Environmental Protection Agency)**
78-93-3 methyl ethyl ketone: 1
- TLV (Threshold Limit Value established by ACGIH)**
109-99-9 tetrahydrofuran: A3
108-94-1 cyclohexanone: A3
57583-34-3 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-methyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate: A4
- MAK (German Maximum Workplace Concentration)**
109-99-9 tetrahydrofuran: 4
108-94-1 cyclohexanone: 3B
- 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:**
Harmful
Highly flammable
- Hazard-determining components of labeling:**
tetrahydrofuran
cyclohexanone
- Risk phrases:**
Highly flammable.
Harmful by inhalation.

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Irritating to eyes and respiratory system.
Limited evidence of a carcinogenic effect.

. Safety phrases:

Keep away from sources of ignition - No smoking.
Do not breathe vapour.
Avoid contact with eyes.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
If swallowed, seek medical advice immediately and show this container or label.
Use only in well-ventilated areas.

. Special labeling of certain preparations:

Contains methyltinmercaptide. May produce an allergic reaction.

. National regulations:

. Technical instructions (air):

. Class Share in %

. NK 50-100

. Water hazard class:

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

. Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

*** 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: QESH Department

. Contact: Reach coördinator

. * Data compared to the previous version altered.

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