



Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 12/28/2010

Reviewed on 12/28/2010

1 Identification of the substance/mixture and of the company/undertaking

- . **Product identifier**
- . **Trade name:** Bison Kit (EU)
- . **Relevant id:** Bison Kit®
- . **Application of the substance / the preparation** 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. +31 113 235700
fax. +31 113 232077
e mail: msds@bison.boltongroup.nl
- . **Information department:** R & D Department
- . **Emergency telephone number:** +31 113 235700

2 Composition/information on ingredients

- . **Chemical characterization:** Mixtures
- . **Description:** Adhesive
- . **Dangerous components:**

64742-49-0 Naphtha (petroleum), hydrotreated light	25-50%
141-78-6 ethyl acetate	10-25%
78-93-3 methyl ethyl ketone	2.5-10%
110-54-3 n-hexane	≤ 2.5%
8052-10-6 Colophony	≤ 2.5%
1314-13-2 zinc oxide	≤ 2.5%
- . **Additional information:**
For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

- . **Classification of the substance or mixture**
- . **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 -  Irritant
Irritating to eyes and skin.
 -  Highly flammable
Highly flammable.
 -  Dangerous for the environment
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Vapours may cause drowsiness and dizziness.
- . **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.

(Contd. on page 2)



Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 12/28/2010

Reviewed on 12/28/2010

Trade name: Bison Kit (EU)

(Contd. of page 1)

Has a narcotizing effect.

. **Classification:** Bison Kit®

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:**

Irritant
Highly flammable
Dangerous for the environment

. **Risk phrases:**

Highly flammable.
Irritating to eyes and skin.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
Vapours may cause drowsiness and dizziness

. **Safety phrases:**

Keep away from sources of ignition - No smoking.
Avoid contact with skin and 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 appropriate container to avoid environmental contamination.
Avoid release to the environment. Refer to special instructions/Safety data sheets

. **Classification system:**

. **NFPA ratings (scale 0-4)**



Health = 1
Fire = 3
Reactivity = 0

. **Other hazards**

. **Results of PBT and vPvB assessment**

- . **PBT:** Not applicable.
- . **vPvB:** Not applicable.

4 First aid measures

. **Description of first aid measures**

. **After inhalation:**

In case of unconsciousness place patient stably in side position for transportation.

. **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:** Do not induce vomiting; immediately call for medical help.

(Contd. on page 3)

USA



Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 12/28/2010

Reviewed on 12/28/2010

Trade name: Bison Kit (EU)

(Contd. of page 2)

5 Firefighting 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
- . **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.
 - 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:**
 - 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

- . **Handling:**
- . **Precautions for safe handling**
 - 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.
 - Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls/personal protection

- . **Additional information about design of technical systems:**
 - No further data; see item 7.

(Contd. on page 4)

USA

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 12/28/2010

Reviewed on 12/28/2010

Trade name: Bison Kit (EU)

(Contd. of page 3)

. Control parameters

. Components Bison Kit®

141-78-6 ethyl acetate

PEL () 1400 mg/m³, 400 ppm

REL () 1400 mg/m³, 400 ppm

TLV () 1440 mg/m³, 400 ppm

78-93-3 methyl ethyl ketone

PEL () 590 mg/m³, 200 ppm

REL () Short-term value: 885 mg/m³, 300 ppm

Long-term value: 590 mg/m³, 200 ppm

TLV () Short-term value: 885 mg/m³, 300 ppm

Long-term value: 590 mg/m³, 200 ppm

BEI

110-54-3 n-hexane

PEL () 1800 mg/m³, 500 ppm

REL () 180 mg/m³, 50 ppm

TLV () 176 mg/m³, 50 ppm

Skin; BEI

. 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.

Avoid contact with the eyes and skin.

. Breathing equipment: Not required.

. Protection of hands:



Protective gloves

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

(Contd. on page 5)

USA

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 12/28/2010

Reviewed on 12/28/2010

Trade name: Bison Kit (EU)

(Contd. of page 4)

. **Eye protection:**



Tightly sealed goggles

. **Body protection:**

Use protective suit.

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

. **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 60°C (140 °F)

. **Flash point:** < 0°C (< 32 °F)

. **Ignition temperature:** 460°C (860 °F)

. **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: 2.1 Vol %

Upper: 11.5 Vol %

. **Vapor pressure at 20°C (68 °F):** 97 hPa (73 mm Hg)

. **Density at 20°C (68 °F):** 0.855 g/cm³ (7.135 lbs/gal)

. **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix.

. **Viscosity:**

Dynamic at 20°C (68 °F): 3500 mPas

Organic solvents: 74.9 %

Water: 0.2 %

Solids content: 24.9 %

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.

. **Hazardous decomposition products:** Danger of toxic pyrolysis products.

(Contd. on page 6)

USA



Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 12/28/2010

Reviewed on 12/28/2010

Trade name: Bison Kit (EU)

(Contd. of page 5)

11 Toxicologic: Bison Kit®

. Information on toxicological effects

. Acute toxicity:

. Primary irritant effect:

. on the skin: Irritant to skin and mucous membranes.

. 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:

Irritant

* 12 Ecological information

. Toxicity

. Aquatic toxicity: No further relevant information available.

. Ecotoxicological effects:

. Remark: Toxic for fish

. Additional ecological information:

. General notes:

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

Water hazard class 2 (Self-assessment): hazardous for water

Danger to drinking water if even small quantities leak into the ground.

. Results of PBT and vPvB assessment

. PBT: Not applicable.

. vPvB: Not applicable.

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

. DOT regulations:



. Hazard class:

3

. Identification number:

UN1133

. Packing group:

III

. Proper shipping name (technical name):

ADHESIVES

. Label

3

(Contd. on page 7)

USA

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 12/28/2010

Reviewed on 12/28/2010

Trade name: Bison Kit (EU)

(Contd. of page 6)

. Remarks: Special marking with the symbol (fish and tree).

. Land transport ADR/RID (cross-border):



. ADR/RID class: 3 (F1) Flammable liquids
. Danger code (Kemler): 33
. UN-Number: 1133
. Packaging group: III
. Special marking: Symbol (fish and tree)
. UN proper shipping name: 1133 ADHESIVES, special provision 640H
. Maritime transport IMDG:



. IMDG Class: 3
. UN Number: 1133
. Label: 3
. Packaging group: III
. EMS Number: F-E, S-D
. Marine pollutant: Yes
. Proper shipping name: ADHESIVES
. Air transport ICAO-TI and IATA-DGR:



. ICAO/IATA Class: 3
. UN/ID Number: 1133
. Label: 3
. Packaging group: III
. Proper shipping name: ADHESIVES
. Environmental hazards:
Product contains environmentally hazardous substances: Naphtha (petroleum), hydrotreated light
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID
. Special precautions for user Warning: Flammable liquids
. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable.

15 Regulatory information

. Safety, health and environmental regulations/legislation specific for the substance or mixture
. SARA Section 355 (extremely hazardous substances)
formaldehyd

(Contd. on page 8)

USA



Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 12/28/2010

Reviewed on 12/28/2010

Trade name: Bison Kit (EU)

(Contd. of page 7)

- . **SARA Section 313 (specific toxic chemical listings)**
 - 78-93-3 me Bison Kit®
 - 110-54-3 n-hexane
 - formaldehyd
- . **TSCA (Toxic Substances Control Act)**

All ingredients are listed.
- . **Prop 65 - Chemicals known to cause cancer**

formaldehyd
- . **Cancerogenity categories**
- . **EPA (Environmental Protection Agency)**
 - 78-93-3 methyl ethyl ketone: 1
 - 110-54-3 n-hexane: II
 - 1314-13-2 zinc oxide: II
 - formaldehyd: B1
- . **IARC (International Agency for Research on Cancer)**
 - 9010-98-4 Polychlorobutadiene rubber: 3
 - formaldehyd: 1
- . **NTP (National Toxicology Program)**

formaldehyd: R
- . **TLV (Threshold Limit Value established by ACGIH)**
 - 1309-48-4 magnesium oxide: A4
 - formaldehyd: A2
- . **MAK (German Maximum Workplace Concentration)**

formaldehyd: 4
- . **NIOSH-Ca (National Institute for Occupational Safety and Health)**

formaldehyd
- . **OSHA-Ca (Occupational Safety & Health Administration)**

formaldehyd
- . **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.
- . **Hazard symbols:**

Irritant
Highly flammable
Dangerous for the environment
- . **Risk phrases:**

Highly flammable.
Irritating to eyes and skin.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
Vapours may cause drowsiness and dizziness
- . **Safety phrases:**

Keep away from sources of ignition - No smoking.
Avoid contact with skin and 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 appropriate container to avoid environmental contamination.
Avoid release to the environment. Refer to special instructions/Safety data sheets

(Contd. on page 9)

USA



Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 12/28/2010

Reviewed on 12/28/2010

Trade name: Bison Kit (EU)

(Contd. of page 8)

- . **National regulations:**
- . **Technical instructions (air):**
- . **Class Share in %**
- . **Water** ≤ 2,5
 - II ≤ 2,5
 - III 50-100
- . **Water hazard class:** Water hazard class 2 (Self-assessment): 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:** R & D laboratory
- . **Contact:** M.L. de Jager
- . *** Data compared to the previous version altered.**

USA