



Safety Data Sheet acc. to OSHA HCS

Printing date 12/04/2015

Reviewed on 07/06/2015

1: Identification

- **1.1 Product identifier**
- **Trade name: Penetrant VBP-300**
- **Application of the substance / the mixture**
NDT Inspection penetrant "Type 2 Methods "A & C" per AMS-2644/ ASTM E-1417
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Met-L-Chek Company
1639 Euclid Street
Santa Monica, California, 90404, U.S.A.
Phone: 1-310-450-1111
Fax: 1-310-452-4046
E-mail: info@met-l-chek.com
http://www.met-l-chek.com
- **Information department:** Product safety department
- **1.4 Emergency telephone number:** Chemtrec +1-800-424-9300 in U.S.A.; outside U.S.A. 001-703-527-3887

2: Hazard(s) identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Skin Irrit. 2 H315 Causes skin irritation.
Eye Dam. 1 H318 Causes serious eye damage.
Carc. 2 H351 Suspected of causing cancer.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labeled according to the CLP regulation.
- **Hazard pictograms**



GHS05 GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
Alcohols, C12-14-secondary, ethoxylated
C.I.Solvent Red 164 (eq)
- **Hazard statements**
H315 Causes skin irritation.
H318 Causes serious eye damage.
H351 Suspected of causing cancer.
- **Precautionary statements**
P280 Wear protective gloves / eye protection.
P280 Wear protective gloves.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a doctor.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local regulations.

(Contd. on page 2)

**Safety Data Sheet**
acc. to OSHA HCS

Printing date 12/04/2015

Reviewed on 07/06/2015

Trade name: Penetrant VBP-300

(Contd. of page 1)

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = *2
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3: Composition/information on ingredients

- **3.2 Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

CAS: 84133-50-6	Alcohols, C12-14-secondary, ethoxylated Eye Dam. 1, H318; Skin Irrit. 2, H315	25-50%
CAS: 84133-50-6	Alcohols, C12-14-secondary, ethoxylated Eye Dam. 1, H318; Skin Irrit. 2, H315	25-50%
CAS: 92257-31-3 EINECS: 296-120-8	C.I.Solvent Red 164 (eq) Carc. 2, H351	1-10%

Additional information:

Note L:

The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346.

Metabolic studies on some Azo-dyes have detected reduction of azo bonds to aromatic amines. It is prudent to assume that the product could metabolise to o-toluidine, which have been identified as animal carcinogens.

4: First-aid measures

- **4.1 Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **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.
Take affected persons into fresh air and keep quiet.
- **After skin contact:**
Immediately wash 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 a doctor.
- **After swallowing:**
Do not induce vomiting; immediately call for medical help.

(Contd. on page 3)



Safety Data Sheet acc. to OSHA HCS

Printing date 12/04/2015

Reviewed on 07/06/2015

Trade name: Penetrant VBP-300

(Contd. of page 2)

A person vomiting while lying on their back should be turned onto their side.

• **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

• **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5: Fire-fighting measures

• **5.1 Extinguishing media**

• **Suitable extinguishing agents:**

Water haze

Foam

ABC powder

• **For safety reasons unsuitable extinguishing agents:** Water spray

• **5.2 Special hazards arising from the substance or mixture** Carbon monoxide and carbon dioxide

• **5.3 Advice for firefighters**

• **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

6: Accidental release measures

• **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

• **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

• **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Collect liquid in an appropriate container or absorb with an inert material such as vermiculite, dry sand, or earth;

DO NOT use combustible materials.

Place in a chemical waste container.

• **6.4 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

• **7.1 Precautions for safe handling** Open and handle receptacle with care.

• **Information about protection against explosions and fires:**

Keep respiratory protective device available.

Use explosion-proof apparatus / fittings and spark-proof tools.

Containers may be hazardous when empty since residue liquid and vapors may be present

• **7.2 Conditions for safe storage, including any incompatibilities**

• **Storage:**

• **Requirements to be met by storerooms and receptacles:** No special requirements.

• **Information about storage in one common storage facility:** Not required.

• **Further information about storage conditions:** Keep receptacle tightly sealed.

(Contd. on page 4)



Safety Data Sheet acc. to OSHA HCS

Printing date 12/04/2015



Reviewed on 07/06/2015

Trade name: Penetrant VBP-300

(Contd. of page 3)

- **7.3 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.
- **8.1 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.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the skin.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
  Ventilation System: A system of local or general exhaust is recommended to keep employee exposure below the airborne exposure limits. If exposure limit is exceeded use organic vapor respirator (type A), or self contained breathing apparatus. For dry powder nuisance exposure use type P96(US) or type Pi(EU EN143 particle respirator. For higher level protection use type OV/AG/P99(US or ABEK-P2(EU EN 143) respirator cartridges.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
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.

- **Eye protection:**



Safety glasses

Tightly sealed goggles

- **Body protection:** Use protective suit.

US

(Contd. on page 5)

**Safety Data Sheet**
acc. to OSHA HCS

Printing date 12/04/2015

Reviewed on 07/06/2015

Trade name: Penetrant VBP-300

(Contd. of page 4)

9: Physical and chemical properties**• 9.1 Information on basic physical and chemical properties****• General Information****• Appearance:****Form:** Liquid**Color:** Red**• Odor:** Characteristic**• Odor threshold:** Not determined.**• pH-value:** Not determined.**• Change in condition****Melting point/Melting range:** Undetermined.**Boiling point/Boiling range:** Undetermined.**• Flammability (solid, gaseous):** Not applicable.**• Ignition temperature:****Decomposition temperature:** Not determined.**• Auto igniting:** Product is not selfigniting.**• Danger of explosion:** Product does not present an explosion hazard.**• Explosion limits:****Lower:** Not determined.**Upper:** Not determined.**• Vapor pressure:** Not determined.**• Density at 20 °C (68 °F):** 0.976 g/cm³ (8.145 lbs/gal) (ASTM D-1298)**• Relative density** Not determined.**• Vapor 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:** Not determined.**Kinematic at 40 °C (104 °F):** 24 mm²/s (ASTM D-445)**• Solvent content:****Organic solvents:** 7.5 %**VOC content:** 5.2 %

51.0 g/l / 0.43 lb/gl

• 9.2 Other information

No further relevant information available.

10: Stability and reactivity**• 10.1 Reactivity** No further relevant information available.

(Contd. on page 6)

**Safety Data Sheet**
acc. to OSHA HCS

Printing date 12/04/2015

Reviewed on 07/06/2015

Trade name: Penetrant VBP-300

(Contd. of page 5)

- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
Avoid contact with acetaldehyde, acids, chlorine, ethylene oxide, isocyanate and strong oxidizing agents
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:** Information on hazardous ingredients
- **Primary irritant effect:**
- **on the skin:**
Causes skin irritation.
- **on the eye:**
Causes serious eye damage.
- **Sensitization:** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **Carcinogenic categories**

IARC (International Agency for Research on Cancer)

Group 1	Carcinogenic to humans
Group 2A	Probably carcinogenic to humans
Group 2B	Possibly carcinogenic to humans
Group 3	Not classifiable as to its carcinogenicity to humans
Group 4	Probably not carcinogenic to humans

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** Information on hazardous ingredients
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Danger to drinking water if even small quantities leak into the ground.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

(Contd. on page 7)

**Safety Data Sheet**
acc. to OSHA HCS

Printing date 12/04/2015

Reviewed on 07/06/2015

Trade name: Penetrant VBP-300


(Contd. of page 6)

- **12.6 Other adverse effects** No further relevant information available.

13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Waste/ unused products
Collect all waste in suitable and labelled containers and dispose according to local legislation.
- **Uncleaned packagings:**
- **Recommendation:**
Waste / used products
Waste products and empty packages dispose of in accordance with local regulations.
Empty containers may contain flammable residue and vapors.

14: Transport information

- **14.1 UN-Number**
- **DOT** NA3082
- **ADR, IMDG, IATA** not applicable
- **14.2 UN proper shipping name**
- **DOT** Environmentally hazardous substances, liquid, n.o.s. (2-ethylhexyl diphenyl phosphate)
- **ADR, IMDG, IATA** not applicable
- **14.3 Transport hazard class(es)**
- **DOT**

- **Class** 9 Miscellaneous dangerous substances and articles
- **Label** 9
- **ADR, IMDG, IATA**
- **Class** not applicable
- **14.4 Packing group**
- **DOT** III
- **ADR, IMDG, IATA** not applicable
- **14.5 Environmental hazards:**
- **Marine pollutant:** No
Yes (DOT)
- **14.6 Special precautions for user** Not applicable.
- **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **Transport/Additional information:** Not dangerous according to the above specifications.

(Contd. on page 8)

**Safety Data Sheet**
acc. to OSHA HCS

Printing date 12/04/2015

Reviewed on 07/06/2015

Trade name: Penetrant VBP-300

(Contd. of page 7)

- **DOT**
- **Quantity limitations**



On passenger aircraft/rail: No limit



On cargo aircraft only: No limit

- **Remarks:**

This material is shipped as a Class 9, Packing Group III (Marine Pollutant) when each package meets or exceeds 119 gallons (450 liters), otherwise it may be shipped as not regulated.
Special marking with the symbol (fish and tree).

- **UN "Model Regulation":**

not applicable

15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- **Carcinogenity categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

115-86-6 triphenyl phosphate

A4

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

(Contd. on page 9)



Safety Data Sheet acc. to OSHA HCS

Printing date 12/04/2015

Reviewed on 07/06/2015

Trade name: Penetrant VBP-300

(Contd. of page 8)

- **15.2 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.

- **Relevant phrases**

H315 Causes skin irritation.
H318 Causes serious eye damage.
H351 Suspected of causing cancer.

- **Department issuing SDS:** Product safety department

- **Contact:** Met-L-Chek Company

- **Date of preparation / last revision** 12/04/2015 / -

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Carc. 2: Carcinogenicity, Hazard Category 2

- *** Data compared to the previous version altered.**

-US-