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Compilation date: 27/05/2015

Revision No: 1

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

1.1. Product identifier

Product name: PES-CHEM 512 UCEN 90 ACTIVATOR

Product code: 512

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet

Company name: Plant Equipment & Svcs

5401 Hwy 21 West Bryan, TX 77803

Tel: (979)779-8700

Email: pes1@pes-solutions.com

1.4. Emergency telephone number

Emergency tel: Chemtrec - 800-424-9300 (24 hrs.)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CHIP: Xn: R20/22; C: R34; Sens.: R43; -: R52/53; Xn: R62

Classification under CLP: Acute Tox. 4: H302; Aquatic Chronic 3: H412; Repr. 2: H361f; Skin Corr. 1B: H314; Skin

Sens. 1A: H317

Most important adverse effects: Harmful by inhalation and if swallowed. Causes burns. May cause sensitization by skin

contact. Harmful to aquatic organisms, may cause long-term adverse effects in the

aquatic environment. Possible risk of impaired fertility.

2.2. Label elements

Label elements:

Hazard statements: H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H317: May cause an allergic skin reaction.

H361f: Suspected of damaging fertility.

H412: Harmful to aquatic life with long lasting effects.

Signal words: Danger

[cont...]



Hazard pictograms: GHS05: Corrosion

GHS07: Exclamation mark GHS08: Health hazard







Precautionary statements: P102: Keep out of reach of children.

P202: Do not handle until all safety precautions have been read and understood.

P260: Do not breathe vapors.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301+330+331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P302+352: IF ON SKIN: Wash with plenty of water/.

P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water/shower.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

P333+313: If skin irritation or rash occurs: Get medical advice/attention.

P501: Dispose of contents/container to hazardous or special waste collection point.

Label elements under CHIP:

Hazard symbols: Corrosive.



Risk phrases: R20/22: Harmful by inhalation and if swallowed.

R34: Causes burns.

R43: May cause sensitization by skin contact.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the

aquatic environment.

R62: Possible risk of impaired fertility.

Safety phrases: S1/2: Keep locked up and out of the reach of children.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek

medical advice.

S29: Do not empty into drains.

S36/37/39: Wear suitable protective clothing, gloves and eye / face protection.

S45: In case of accident or if you feel unwell, seek medical advice immediately (show

the label where possible).

2.3. Other hazards



PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

BENZYL ALCOHOL

| BENZYL ALCO | OHOL | | | |
|----------------|-----------------|--|---|---------|
| EINECS | CAS | CHIP Classification | CLP Classification | Percent |
| 202-859-9 | 100-51-6 | Xn: R20/22 | Acute Tox. 4: H332; Acute Tox. 4: H302 | 10-30% |
| 4-TERT-BUTY | 'LPHENOL | | | |
| 202-679-0 | 98-54-4 | Xi: R38; Xi: R41; Xn: R62 | Repr. 2: H361f; Skin Irrit. 2: H315; Eye Dam. 1: H318 | 10-30% |
| M-PHENYLEN | IEBIS(METHYLA | MINE) | | |
| 216-032-5 | 1477-55-0 | C: R34; Xn: R20/22; Sens.: R43 | Skin Corr. 1B: H314; Acute Tox. 4: H302; Skin Sens. 1: H317; Aquatic Chronic 3: H412; Acute Tox. 4: H332 | 10-30% |
| TRIMETHYLH | EXANE-1,6-DIAN | MINE | | |
| 247-063-2 | 25513-64-8 | C: R34; Xn: R22; Sens.: R43 | Skin Corr. 1C: H314; Acute Tox. 4: H302; Skin Sens. 1A: H317; Aquatic Chronic 3: H412; Acute Tox. 4: H312 | 1-10% |
| 3-AMINOMETI | HYL-3,5,5-TRIME | ETHYLCYCLOHEXYLAMINE | | |
| 220-666-8 | 2855-13-2 | Xn: R21/22; C: R34; Sens.: R43; -: R52/53 | Acute Tox. 4: H312; Acute Tox. 4: H302; Skin Corr. 1B: H314; Skin Sens. 1: H317; Aquatic Chronic 3: H412 | 1-10% |
| 4,4'-ISOPROP | YLIDENEDIPHE | NOL | | |
| 201-245-8 | 80-05-7 | Xn: R62; Xi: R37; Xi: R41; Sens.: R43; -: R52 | Repr. 2: H361f; STOT SE 3: H335; Eye Dam. 1: H318; Skin Sens. 1: H317 | 1-10% |
| 3-AMINOPRO | PYLDIMETHYLA | MINE | | |
| 203-680-9 | 109-55-7 | -: R10; Xn: R22; C: R34; Sens.: R43 | Flam. Liq. 3: H226; Acute Tox. 4: H302; Skin Corr. 1B: H314; Skin Sens. 1: H317 | 1-10% |
| 2,4,6-TRIS(DII | METHYLAMINON | METHYL)PHENOL | | |
| 202-013-9 | 90-72-2 | Xn: R22; Xi: R36/38 | Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315 | 1-10% |
| PHENOL, STY | ROLISED | | | |
| 262-975-0 | 61788-44-1 | Xi: R38; Sens.: R43; N: R51/53 | Skin Irrit. 2: H315; Skin Sens. 1: H317; Aquatic Chronic 2: H411 | 1-10% |

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin.



Drench the affected skin with running water for 10 minutes or longer if substance is still

on skin. Transfer to hospital if there are burns or symptoms of poisoning.

Eye contact: Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist

examination.

Ingestion: Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10

minutes. If unconscious, check for breathing and apply artificial respiration if necessary.

If unconscious and breathing is OK, place in the recovery position. Transfer to hospital

as soon as possible.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. If

unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and

provide oxygen if available. Transfer to hospital as soon as possible.

4.2. Most important symptoms and effects, both acute and delayed

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be

bleeding from the mouth or nose.

Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may

cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

4.3. Indication of any immediate medical attention and special treatment needed

Immediate / special treatment: Not applicable.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray

to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Corrosive. In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact

with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures



Personal precautions: Notify the police and fire brigade immediately. If outside keep bystanders upwind and

away from danger point. Mark out the contaminated area with signs and prevent access to unauthorized personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the

escape of liquid.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Clean-up should be dealt with only by qualified personnel familiar with the specific

substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage

container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.

Do not handle in a confined space. Avoid the formation or spread of mists in the air.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

4,4'-ISOPROPYLIDENEDIPHENOL

Workplace exposure limits:

Respirable dust

| State | 8 hour TWA | 15 min. STEL | 8 hour TWA | 15 min. STEL |
|-------|------------|--------------|------------|--------------|
| UK | 5 mg/m3 | 5 mg/m3 | - | _ |



DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Impermeable gloves.

Eye protection: Tightly fitting safety goggles. Ensure eye bath is to hand.

Skin protection: Impermeable protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Color: Amber

Odor: Ammoniacal

Solubility in water: Insoluble

Viscosity: Non-viscous

Boiling point/range°F: >392 Flash point°F: >212 Relative density: 1.0

Autoflammability°F: 716

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Strong oxidizing agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

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Section 11: Toxicological information

| 11 1 | . Informa | tion on | toxical | logical | effects |
|------|-----------|---------|---------|---------|---------|
| | | | LUXICUI | ouicai | CHECLO |

Hazardous ingredients:

BENZYL ALCOHOL

| IVN | RAT | LD50 | 53 | mg/kg |
|-----|-----|------|------|-------|
| ORL | MUS | LD50 | 1360 | mg/kg |
| ORL | RAT | LD50 | 1230 | mg/kg |

M-PHENYLENEBIS(METHYLAMINE)

| DERMAL | RAT | LD50 | 3100 | mg/kg |
|--------|-----|------|------|-------|
| ORAL | RAT | LD50 | 930 | mg/kg |

TRIMETHYLHEXANE-1,6-DIAMINE

| DERMAL | RAT | LD50 | 1280 | mg/kg |
|--------|-----|------|------|-------|
| ORAL | RAT | LD50 | 910 | mg/kg |

4,4'-ISOPROPYLIDENEDIPHENOL

| ORL | MUS | LD50 | 2400 | mg/kg |
|-----|-----|------|------|-------|
| ORL | RAT | LD50 | 3250 | mg/kg |

3-AMINOPROPYLDIMETHYLAMINE

| ORL | RAT | LD50 | 1870 | mg/kg |
|-----|-----|------|------|-------|
| SKN | RBT | LD50 | 600 | μl/kg |

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

| ORL | RAT | LD50 | 1200 | mg/kg |
|-----|-----|------|------|-------|
| SKN | RAT | LD50 | 1280 | mg/kg |

PHENOL, STYROLISED

| DERMAL | RAT | LD50 | >2000 | mg/kg |
|--------|-----|------|-------|-------|
| ORAL | RAT | LD50 | >2000 | mg/kg |

Relevant effects for mixture:

| Effect | Route | Basis |
|---------------------------|-------------|-----------------------|
| Acute toxicity (harmful) | INH ING | Hazardous: calculated |
| Corrosivity | OPT INH DRM | Hazardous: calculated |
| Sensitization | DRM | Hazardous: calculated |
| Toxicity for reproduction | | Hazardous: calculated |

Symptoms / routes of exposure



Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. Blood may be vomited.

There may be bleeding from the mouth or nose.

Inhalation: There may be shortness of breath with a burning sensation in the throat.

Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

Hazardous ingredients:

M-PHENYLENEBIS(METHYLAMINE)

| DAPHNIA | 48H EC50 | 15.2 | mg/l |
|---------|----------|------|------|
| FISH | 96H LC50 | >100 | mg/l |

TRIMETHYLHEXANE-1,6-DIAMINE

| FISH | 48H EC50 | 17/ | ma/l |
|--------|-----------|-----|--------|
| 1 1011 | 4011 2030 | 1/4 | ilig/i |

PHENOL, STYROLISED

| DAPHNIA | 48H EC50 | 1-10 | mg/l |
|---------|----------|------|------|
| FISH | 96H LC50 | 14.8 | mg/l |

12.2. Persistence and degradability

Persistence and degradability:

Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

Section 13: Disposal

considerations

13.1. Waste treatment methods



Disposal operations: Transfer to a suitable container and arrange for collection by

specialized disposal company.

NB: The user's attention is drawn to the possible existence of

regional or national regulations regarding disposal.

Section 14: Transport information

14.1. UN number

UN number: UN2735

14.2. UN proper shipping name

Shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (4-TERT-BUTYLPHENOL)

14.3. Transport hazard class(es)

Transport class: 8

14.4. Packing group

Packing group: III

14.5. Environmental hazards

Environmentally hazardous: No Marine pollutant: No

14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: E

Transport category: 3

Section 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Specific regulations: Not applicable.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance

or the mixture by the supplier.

Section 16: Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No

453/2010.

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3: H226: Flammable liquid and vapor.

H302: Harmful if swallowed.

H312: Harmful in contact with skin.

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H314: Causes severe skin burns and eye damage.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H335: May cause respiratory irritation.

H361f: Suspected of damaging fertility.

H411: Toxic to aquatic life with long lasting effects.

H412: Harmful to aquatic life with long lasting effects.

R10: Flammable.

R20/22: Harmful by inhalation and if swallowed.

R21/22: Harmful in contact with skin and if swallowed.

R22: Harmful if swallowed.

R34: Causes burns.

R36/38: Irritating to eyes and skin.

R37: Irritating to respiratory system.

R38: Irritating to skin.

R41: Risk of serious damage to eyes.

R43: May cause sensitization by skin contact.

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic

environment.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the

aquatic environment.

R52: Harmful to aquatic organisms.

R62: Possible risk of impaired fertility.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive

and shall be used only as a guide. This company shall not be held liable for any

damage resulting from handling or from contact with the above product.

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