**Compilation date:** 17/11/2016

**Revision date:** 16/08/2017

Revision No: 2.0

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

**1.1. Product identifier**

**Product name:** UV ADDITIVE – HFO1234yf

Cod.11.005YF/11.060YF/11.801/1YF

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

**Use of substance / mixture:** Air conditioning leak detection

**1.3. Details of the supplier of the safety data sheet**

**Company name:** ELKE S.r.l.

Via XXV Aprile 202

10042 Nichelino (To) Italia

**Tel:** +39 011 9622412

**Email:** info@elke-ac.com

**1.4. Emergency telephone number**

**Emergency tel:** Centro Antiveleni Ospedale Niguarda Milano +39 02.66101029

**Section 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification under CLP:** This product has no classification under CLP.

**2.2. Label elements**

**Label elements:** This product has no label elements.

**2.3. Other hazards**

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

**Section 3: Composition/information on ingredients**

**3.2. Mixtures**

**4.1. Description of first aid measures**

**Section 4: First aid measures**

**Skin contact:** Wash immediately with plenty of soap and water.

**Eye contact:** Flush the eye immediately with water. If discomfort persists, obtain medical attention.

**Ingestion:** If swallowed, do not induce vomiting. Never administer anything by mouth if a casualty is losing consciousness, is unconscious or is convulsing. Wash out mouth with water. If rapid recovery does not occur, obtain medical attention.

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

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

**Skin contact:** \* None known. **Eye contact:** \* None known. **Ingestion:** \* None known.

**Inhalation:** \* None known.

**Delayed / immediate effects:** \* None known.

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

**Immediate / special treatment:** \* None known.

**Section 5: Fire-fighting measures**

**5.1. Extinguishing media**

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Water spray. Carbon dioxide. Alcohol resistant foam. Dry chemical powder. Use water spray to cool containers.

**5.2. Special hazards arising from the substance or mixture**

**Exposure hazards:** 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:** Refer to section 8 of SDS for personal protection details. 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:** 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 13 of SDS.

**Section 7: Handling and storage**

**7.1. Precautions for safe handling**

**Handling requirements:** Ensure there is sufficient ventilation of the area.

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

**Storage conditions:** Store in a cool, well ventilated area. Keep container tightly closed. Avoid incompatible materials and conditions - see section 10 of SDS.

**Suitable packaging:** \* We recommend storing in original packaging. Stainless steel.

**7.3. Specific end use(s)**

**Specific end use(s):** No data available.

**Section 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Workplace exposure limits:** No data available.

**DNEL/PNEC Values**

**DNEL / PNEC** No data available.

**8.2. Exposure controls**

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

**Respiratory protection:** Respiratory protection not required.

**Hand protection:** Impermeable gloves.

**Eye protection:** Safety glasses with side-shields. Ensure eye bath is to hand.

**Skin protection:** Impermeable protective clothing.

**Environmental:** \* Refer to specific Member State legislation for requirements under Community environmental legislation.

**Section 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

**State:** Liquid

**Colour:** yellow.

**Odour:** Characteristic odour

**Evaporation rate:** No data available.

**Oxidising:** No data available.

**Solubility in water:** Insoluble

**Kinematic viscosity:** 100 cSt

**Boiling point/range°C:** No data available. **Melting point/range°C:** No data available.

**Flammability limits %: lower:** No data available. **upper:** No data available. **Flash point°C:** >250 **Part.coeff. n-octanol/water:** No data available. **Autoflammability°C:** No data available. **Vapour pressure:** No data available.

**pH:** No data available. **VOC g/l:** No data available.

**9.2. Other information**

**Other information:** Relative density @ 20°C: 0.985 - 1.010 g/cm³. Pour point °C: <-35 (typical).

**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:** Sources of ignition. Flames. Heat.

**10.5. Incompatible materials**

**Materials to avoid:** Strong oxidising agents. Strong acids.

**10.6. Hazardous decomposition products**

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

**Section 11: Toxicological information**

**11.1. Information on toxicological effects**

**Toxicity values:** No data available.

**Symptoms / routes of exposure**

**Skin contact:** \* None known. **Eye contact:** \* None known. **Ingestion:** \* None known.

**Inhalation:** \* None known. **Delayed / immediate effects:** \* None known. **Other information:** \* None known.

**Section 12: Ecological information**

**12.1. Toxicity**

**Ecotoxicity values:** No data available.

**12.2. Persistence and degradability**

**Persistence and degradability:** No data available.

**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:** Not applicable.

**Section 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal operations:** \* Dispose of as normal industrial waste.

**Recovery operations:** Storage of waste pending any of the other recovery operations (excluding temporary storage, pending collection, on the site where the waste is produced).

**Waste code number:** 13 02 06

**Disposal of packaging:** Dispose of as normal industrial waste.

**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

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es) N.A.

14.4. Packing group

N.A.

14.5. Environmental hazards

Marine pollutant: No

N.A.

14.6. Special precautions for user

N.A.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

N.A.

**Section 15: Regulatory information**

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

**Specific regulations:** Global Chemical Inventories: EC (EINECS) - All components listed or exempt. US (TSCA) –

All components listed or exempt. Canada (DSL) - All components listed or exempt. Australia (AICS) - All components listed or exempt. Philippines (PICCS) - All components listed or exempt. South Korea (KECI) - All components listed or exempt. China (IECSC) - All components listed or exempt.

**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**

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.

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

**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.