1 Identification

· Product identifier
  · Trade name: CA-WELD

· Relevant identified uses of the substance or mixture. Adhesive

· Details of the supplier of the safety data sheet
  · Manufacturer/Supplier:
    Tandus Centiva Technologies
    PO Box 1447
    1000 Vista Drive
    Dalton, GA 30721
    Information 706-259-9711

· Information department: Environment protection department.

· Emergency telephone number:
  · ChemTrec: Day or Night within USA and Canada: 1-800-424-9300.
  · Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

· Classification of the substance or mixture
  · GHS02 Flame

  Flam. Liq. 2  H225  Highly flammable liquid and vapor

· Label elements
  · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
  · Hazard pictograms

  · GHS02

· Signal word Danger

· Hazard statements
  · Highly flammable liquid and vapor.

· Precautionary statements
  · If medical advice is needed, have product container or label at hand.
  · Keep out of reach of children.
  · Read label before use.
  · Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  · Use explosion-proof electrical/ventilating/lighting/equipment.
  · Wear protective gloves / eye protection / face protection.
  · Ground/bond container and receiving equipment.
  · Keep container tightly closed.
  · Use only non-sparking tools.
  · Take precautionary measures against static discharge.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

In case of fire: Use for extinction: CO2, powder or water spray.
Safety Data Sheet
acc. to OSHA HCS

Trade name: CA-WELD

Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:
  - NFPA ratings (scale 0 - 4)
    - Health = 1
    - Fire = 3
    - Reactivity = 0

- HMIS-ratings (scale 0 - 4)
  - Health = 1
  - Fire = 3
  - Physical Hazard = 0

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

3 Composition/information on ingredients

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

<table>
<thead>
<tr>
<th>Hazardous components:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>67-64-1 acetone</td>
</tr>
<tr>
<td>108-94-1 cyclohexanone</td>
</tr>
</tbody>
</table>

4 First-aid measures

- Description of first aid measures
  - After inhalation:
    - Supply fresh air or oxygen; call for doctor.
    - 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 20 minutes under running water. If eye becomes irritated, obtain medical treatment.
  - After swallowing:
    - Do not induce vomiting; immediately call for medical help.
    - Seek medical treatment.
  - Information for doctor:
    - 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: CO2, sand, extinguishing powder. Do not use water.
  - For safety reasons unsuitable extinguishing agents: Water
  - Special hazards arising from the substance or mixture: No further relevant information available.
6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - Wear protective equipment. Keep unprotected persons away.
  - Ensure adequate ventilation.
- **Environmental precautions:** 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 of contaminated material as waste in accordance with federal state and local regulations.
  - 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
  - Avoid prolonged or repeated contact with skin.
  - Avoid contact with eyes.
  - Wash thoroughly after handling.
  - Ensure good ventilation/exhaustion at the workplace.
  - Prevent formation of aerosols.
  - Open containers in a well ventilated area and avoid breathing headspace vapors.
- **Information about protection against explosions and fires:**
  - Keep ignition sources away - Do not smoke.
  - Protect against electrostatic charges.
  - Keep container closed when not in use.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
  - Requirements to be met by storerooms and receptacles: Store in a cool location away from direct heat.
  - Information about storage in one common storage facility: Store away from oxidizing agents.
  - Further information about storage conditions: Keep receptacle tightly sealed.
  - **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:**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Long-term value</th>
<th>REL Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-64-1 acetone</td>
<td>2400 mg/m³, 1000 ppm</td>
<td>590 mg/m³, 250 ppm</td>
</tr>
</tbody>
</table>

(Contd. on page 4)
Trade name: CA-WELD

TLV  Short-term value: (1782) NIC-1187 mg/m³, (750) NIC-500 ppm
     Long-term value: (1188) NIC-594 mg/m³, (500) NIC-250 ppm
     BEI

108-94-1 cyclohexanone

PEL  Long-term value: 200 mg/m³, 50 ppm
REL  Long-term value: 100 mg/m³, 25 ppm
     Skin
     TLV Long-term value: 50 mg/m³, 20 ppm
     Skin

Ingredients with biological limit values:

67-64-1 acetone

BEI  50 mg/L
     Medium: urine
     Time: end of shift
     Parameter: Acetone (nonspecific)

108-94-1 cyclohexanone

BEI  80 mg/L
     Medium: urine
     Time: end of shift at end of workweek
     Parameter: 1,2-Cyclohexanediol with hydrolysis (nonspecific, semi-quantitative)

8 mg/L
     Medium: urine
     Time: end of shift
     Parameter: Cyclohexanol with hydrolysis (nonspecific, semi-quantitative)

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

Exposure controls

Personal protective equipment (see listings below)

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.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.

Breathing equipment:
Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

Protection of hands:

Protective gloves

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

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.

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.
Trade name: CA-WELD

- **Eye protection:**
  Safety glasses with side shields.
  Tightly sealed goggles

- **Body protection:** Protective work clothing

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

  - **General Information**
  
  - **Appearance:**
    - Form: Liquid
    - Color: Amber
    - Odor: Characteristic
    - Odour threshold: Not determined.
  
  - **pH-value:** Not determined.

  - **Change in condition**
    - Melting point: Undetermined.
    - Boiling point: 55 °C (131 °F)

  - **Flash point:** -17 °C (1 °F)

  - **Flammability (solid, gaseous):** Not applicable.

  - **Ignition temperature:** 465 °C (869 °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.

  - **Flammable limits:**
    - Lower: 2.6 Vol %
    - Upper: 13.0 Vol %

  - **Vapor pressure at 20 °C (68 °F):** 233 hPa (175 mm Hg)

  - **Specific gravity at 20 °C (68 °F):** 0.915 g/cm³ (7.636 lbs/gal)
  
  - **Relative density** Not determined.

  - **Vapour density** Not determined.

  - **Evaporation rate** Not determined.

  - **Solubility in / Miscibility with**
    - Water: Insoluble

  - **Partition coefficient (n-octanol/water):** Not determined.

  - **Viscosity:**
    - Dynamic: Not determined.
    - Kinematic: Not determined.

  - **Solvent content:**
    - Organic solvents: not available
Trade name: CA-WELD

Solids content: not available
Other information: VOC Grams/Liter 11.
VOC Grams/Liter [less water, less exempts] 48.

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: Heat, flames, sparks, hot surfaces, ignition sources.
  - Incompatible materials: Strong oxidizers, acids, and bases.
  - Hazardous decomposition products:
    Carbon monoxide and carbon dioxide
    Hydrocarbons

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - LD/LC50 values that are relevant for classification:
    67-64-1 acetone
    Oral LD50 5800 mg/kg (rat)
    Dermal LD50 20000 mg/kg (rabbit)
- Primary irritant effect:
  - on the skin: May irritate the skin.
  - on the eye:
    - May irritate the eye.
    - Vapors may be irritating to the eyes.
  - Sensitization: Prolonged or repeated contact may cause skin sensitization.
- Additional toxicological information:
  - The product shows the following dangers according to internally approved calculation methods for preparations:
    Irritant
  - Carcinogenic categories
    - IARC (International Agency for Research on Cancer)
      108-94-1 cyclohexanone 3
    - 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

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
Trade name: CA-WELD

- Behavior in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Additional ecological information:
- General notes: At present there are no ecotoxicological assessments.
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
- Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation: Must be specially treated adhering to official regulations.
- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT, ADR, IMDG, IATA: UN1133

- UN proper shipping name
  - DOT: Adhesives
  - ADR: 1133 Adhesives
  - IMDG, IATA: ADHESIVES

- Transport hazard class(es)
  - DOT
    - Class: 3 Flammable liquids
    - Label: 3
  - ADR, IMDG, IATA
    - Class: 3 Flammable liquids
    - Label: 3
  - Packing group
    - DOT, ADR, IMDG, IATA: II
  - Environmental hazards:
    - Not applicable.
  - Special precautions for user: Warning: Flammable liquids
  - Danger code (Kemler):
    - 33
Safety Data Sheet
acc. to OSHA HCS

Trade name: CA-WELD

EMS Number: F-E-S-D
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.
UN "Model Regulation": UN1133, Adhesives, 3, II

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.
- Section 313 (Specific toxic chemical listings):
  None of the ingredients is listed.
- TSCA (Toxic Substances Control Act):
  All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.
- Proposition 65
- Chemicals known to cause cancer:
  None of the ingredients is listed.
- Chemicals known to cause reproductive toxicity:
  None of the ingredients is listed.
- (DSL) Canada Domestic Substance List
  All components of this product are on the DSL (Canada Domestic Substance list) or are exempt from DSL requirements.
- Cancerogenity categories
- EPA (Environmental Protection Agency)
  67-64-1 acetone 1
- TLV (Threshold Limit Value established by ACGIH)
  67-64-1 acetone A4
  108-94-1 cyclohexanone A3
- MAK (German Maximum Workplace Concentration)
  108-94-1 cyclohexanone 3B
- NIOSH-Ca (National Institute for Occupational Safety and Health)
  None of the ingredients is listed.
- National regulations:
  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
Although the information and recommendations set forth in this SDS [SDS] are presented in good faith and are believed to be correct as of the date of this SDS [SDS], the supplier/manufacturer makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will the supplier/manufacturer be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS [SDS].

- **Department issuing SDS**: Environment protection department.
- **Creation Date**: 06/17/2015
- **Date of preparation / last revision**: 06/17/2015
- **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
  - 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)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - Flam. Liq. 2: Flammable liquids, Hazard Category 2