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|  | Torrance Fire DepartmentHazardous Materials Worksheet RESCUE/FAST ENTRY  |

 |
|  **Date: Incident#: Dispatched: Radio Channel:** |
| Location: |
| Responsible Party: Cell: Landline: |
| Description of incident: |

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| Spill | Leak |
| Odor | Dumping |
|  |  |

 |
| Exposed # | Injured # | Transported# | Hospital Name/Address/Phone |
| Initial Shelter in place Y/NDistance | Initial Evacuaton Y/NDistance | Dead #  |
| **Chemical Information:** |
| Product Name  | Trade Name:  | Synonym(s) |
| Manfacturer  | Shipper |  |
| Physical Description: |
| Incompatible/Reactive: |
| DOT# | Compsition |
| Volume: | Name | CAS | % |
| Name | CAS | % |
| Name | CAS | % |
| SolidLiquidGas | IDLHPELTWARELTLV | OdorThresppm | Vapor Pressure[ ] Heat[ ] Reactivity[ ] Pressure | %LEL/UEL | Flash PointLiquids Only | IgnitionTemp F | I.P.<10.6LampPID Y/N | Boiling Point | Polymerize(Heat) | Water Soluble>10% | Vapor Density<1 Up>1 Down | Specific Gravity<1 Floats>1 Sinks |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Extinguishing Agents | [ ]  Water [ ]  AFFF [ ] AFFF/ATC [ ]  Dry Chemical [ ]  Dry Powder [ ]  Halon [ ]  CO2 |
| Decon Solutions | [ ]  Water [ ] “E” **S**oap & Water | [ ]  “A”5% Sodium Bicarbonate & 5% TSP[ ] ”B” 10% Calcium Hypocholorite | [ ]  “C” 5% Trisodium Phosphate (TSP)[ ]  “D” Citric Acid |
| **Action Objectives** | **Evacuation Distances & Control Zones** |
| 1 | Approach with Caution | [ ]  Shelter in Place [ ]  Solid 75’ [ ]  Liquid 150’ [ ]  Gas 300’ | [ ]  Evacuation [ ]  Solid 75’ [ ]  Liquid 150’ [ ]  Gas 300’ |
| 2 | ID & Assess |
| 3 | Rescue  |
| 4 | Isolate |
| 5 | Control/Contain | First Aid |
| 6 | Evacuate/Shelter in Place |  |  |
| 7 | Notifications |  |  |
| 8 | Decontamination |  |  |
| 9 | Documentation/RP |  |  |
| **Personal Protective Equipment****Questions? = Use Safest Protection** | **Detection****ERG Guide # 112,113,114 are Explosives - ERG Guide # 161-166 are RADS** |

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| **RESCUE / FAST ENTRY** |
|  | YES | NO |
| Hot Liquid? |  | [ ]  |
| Cold Liquid? |  | [ ]  |
| Gamma Rad? |  | [ ]  |
| Flammable? |  | [ ]  |
| Explosive? |  | [ ]  |
| Suit Compatible |  |  |
| **ALL [ ]  checked? GO** |
| **Any  ­-- Risk vs Gain?** |

 |
| [ ]  Level “A” (Corrosive gas - ERG Guide # 118, 123, 124, 125 or skin absorbing gas) | CGI | PID/FID | Rad Pager | Ph Paper | F-Paper |
| [ ]  Level “B” (Solid or liquid corrosive or skin absorbing chemical) | Tubes/Chips | Heat Gun | Freon | RP Inst. | **Take all if you don’t know** |
| [ ]  Turnouts w/SCBA (Solid, liquid, or gases that are not corrosive or skin absorbing gas) | Bio Strips | WMD | FTIR | Raman |
| **Resources: Have questions ready with the CAS# handy. Get contacts name and title in case you have to call back**Medical Questions: Poison Contro l-800-876-4766Medical ,Chemical Questions, Other: CHEMTREC 800-424-9306Toxicity, Environmental Questions: ATSDR Duty Officer 770-488-7100 |
| **When you have doubts call outside resources**When calling chemists or doctors attempt to get CAS#’ |
| **Vapor Pressure** | **Water Solubility** |
| Will chemical come and come get me?O mm/hg = Rock25 mm/hg = Water180 mm/hg = Acetone760 mm/hg = Gas | Other ways you see mm/hg1 atm = 760 mm/hg1 Torr = 1 mm/hg1kPa = 7.5 mm/Hg1 psi = 50 mm/Hg1psi = 6.895kPa | **<10% Use fog stream to push like a smoke ejector** **Decon with soap and water****>10% Use fog stream to absorb** **BE AWARE OF RUNOFF ISSUES BECAUSE NOW YOU HAVE REACTED A NEW CHEMICAL** **Decon with water** |
| **Exposure Values - Is it going to hurt me** | **Vapor Density and Molecular weight** |
| IDLH., TLV, TWA, PEL, REL - ppm or mg/m**3.**  0-100 ppm Don’t inhale, touch or ingest100-1000 ppm Don’t touch or ingest 1000 ppm or more Don’t ingest  Every time people are exposed or potentially exposed call!Less <100 ppm Probably need some type of protection – Call if not sureMW divided by 25 will give you conversion from mg/m**3** to ppm, sometimes conversion in NIOSH | **Tells us if chemical goes up or down**Vapor Density of air = 1More than 1 VD = goes downLess than 1 VD = goes upMolecular weight of air = 30More than 30 MW goes down Less than 30 MW goes up |
| **Odor Threshold Value**If odor threshold less than < TLV,TWA,PEL,REL you know people are at least getting chronic exposure.If odor threashold is more than > TLV, TWA, PEL,IDLH if they are smelling it they are getting acute exposure. |
| **Corrosivity/ ph paper Blue = Base Red = Acid Green = Neutral**  **F-Paper Yellow = Fluorine or not soluble** |
| **Radiation** **Rescue 50 Rem****Yearly Dose Rad Worker 5 Rem****2 milirem = Hot Zone****Background Radiation varies ~5-15**1 microrem (µrem) 1000 microrem (µrem) = 1 millirem (mrem) 1000 miliren (mrem) = 1 rem (rem) \*3-4 Times background indicates something is present. |

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| **Isotope** | **Type** | **Half Life** | **Rad Type** |
| **Iodine 131** | **Medical** | **8 Days** | **Beta** |
| **Technetium** | **Medical** |  **6 hrs.** | **Beta** |
| **Cesium 137** | **Industrial** | **30 yrs** | **Beta, Gam** |
| **Ameriecum** | **Industrial** |  |  |
|  |  |  |  |
| **Uranium 235** | **WMD** | **703 mil yrs** | **Alpha** |
| **Plutonium 239** | **WMD** | **24,000 yrs** | **Alpha** |
|  |  |  |  |

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| **Ionizing Radiation**AlphaBeta GammaNeutronX-ray | http://upload.wikimedia.org/wikipedia/commons/thumb/6/61/Alfa_beta_gamma_radiation_penetration.svg/300px-Alfa_beta_gamma_radiation_penetration.svg.png | **Radiation Surface Radiation****White I <0.5 mr/hr****Yellow II >0.5 <50 mr/hr****Yellow III >50 <200 mr/hr****Transportation Inded (TI) is measured at 1M from the surface.** | 1µrem=10nSv1mrem=10µSv1rem=10mSv100rem=1Sv1krem=10 Sv |
| **Convert Celsius to Fahrenheit**Fahrenheit Degrees = (1.8 x C) + 32Example: 100C converted to 212F . (1.8 C 100) + 32 = 212FTech Ref Resources[www.genium.com](http://www.genium.com) [www.wiser.com](http://www.wiser.com)  |