



SAN DIEGO
HAZARDOUS INCIDENT RESPONSE TEAM
STANDARD OPERATING GUIDELINES



FENTANYL

ITEM	DESCRIPTION
<input type="checkbox"/> BACKGROUND INFORMATION	<p>The primary concern for fentanyl is inhalation of airborne powders. PPE should be closely evaluated for each incident. There is the possibility of skin absorption, especially if there are open wounds or hand sanitizer acting as a solvent. Some fentanyl analogs can pose more of a risk, Carfentanil is approximately 100 times more lethal (a couple grains of salt). Responders are most likely to encounter illicitly manufactured fentanyl and its analogues in powder, tablet, and liquid form. Narcan nasal spray is available on the HIRT trucks to be administered to HIRT staff only. Various cutting agents can be detected with IR equipment, including sugars (lactose monohydrate). Trace detection is completed with MX908 and Rapid Response test strips. IR (Raman, FTIR) equipment will show more concentrated fentanyl (>5%). Law enforcement and DEA have the capability to test for fentanyl and other drugs.</p>
<input type="checkbox"/> INITIAL SIZE UP	<ul style="list-style-type: none">▪ Exposures/symptoms? Symptoms include labored breathing, small pupils, fatigue, confusion▪ Medical Transports? Deaths? Emergency decon?▪ Contained? Indoors, outdoors? HVAC shut off?▪ Location: Vehicle, home?▪ Any identification of suspected drugs by law enforcement?▪ Containers and quantities: powders, pills present? Paraphernalia, equipment? Gross contamination observed?▪ The following activities may lead to condemnation: manufacturing, laboratory activity, pill press, cutting/milling, and/or storage of 2oz of concentrated fentanyl.▪ Check for availability of Narcan, contact Duty Medical Support (DMS) and/or establish a medical group as needed.
<input type="checkbox"/> PROTECTIVE MEASURES	<ul style="list-style-type: none">▪ Isolate / Deny Entry: Evacuate impacted area, secure scene▪ Provide guidance to prevent spread of contamination i.e. evidence collection.▪ Use a water mister to knock down fine powders in enclosed spaces upon entry▪ Maintain an upwind approach
<input type="checkbox"/> TACTICAL ACTIONS	<ul style="list-style-type: none">▪ Establish site access control▪ Shut down HVAC if indoors▪ Ensure first responders are wearing appropriate PPE▪ Monitor area with all hazards approach▪ Establish Site Safety plan▪ Identify unknown chemicals▪ Determine extent of contamination and decontaminate impacted areas as needed
<input type="checkbox"/> PERSONAL PROTECTIVE EQUIPMENT	<p>Continuously assess the scene to determine the appropriate exposure risk and PPE: symptoms, overdoses, operations and extent of contamination. Guidelines below are minimum PPE requirements; higher levels of PPE are acceptable based on risk factors observed. Weather conditions (windy) or a running HVAC system may warrant wearing a Tyvek suit.</p> <ul style="list-style-type: none">▪ Low Risk: Suspected fentanyl in unknown powders, no symptoms reported: N95/P95 or P100, nitrile gloves, safety glasses, coveralls, booties if needed▪ Moderate Risk: Overdose with powder present: P100 or CBRN, nitrile gloves, booties. Use a coated Tyvek suit based on extent of contamination. Paper Tyveks suit may absorb fine powders▪ High Risk: Incident where liquid fentanyl or large amounts of fentanyl products are visible. Pill Press / Manufacturing / Gross Contamination: P100 or CBRN with PAPR, Level C XRT Suits or higher level of protection

<input type="checkbox"/>	MONITORING & DETECTION	<ul style="list-style-type: none"> ▪ All Hazards Monitoring: <ul style="list-style-type: none"> ○ CGI, PID, RAD, pH paper, Fluoride paper ▪ Trace Detection: sample outside of packaging if possible. <ul style="list-style-type: none"> ○ MX908: detection limit is 16 nanograms in Drug Hunter Mode ○ Rapid Response Test Strips: detection limit is 200 nanograms or 0.2 micrograms. Note false positives may occur if methamphetamine, MDMA, and diphenhydramine (cutting agent for heroin) at concentrations at or above 1 mg/mL is present ▪ Bulk Detection: Use the Rigaku and/or Raman to scan outside of packaging if possible. <p>FTIR/Raman will identify more concentrated/pure levels and cutting agents. More likely to detect mixtures with more than 5% fentanyl.</p>
<input type="checkbox"/>	DECONTAMINATION	<p>Fentanyl and analogs are broken down thru oxidation. Obtain consent from the property owner or responsible party prior to decontamination of personal property and living areas.</p> <ul style="list-style-type: none"> ▪ Options for Contaminated Surfaces: <ul style="list-style-type: none"> ○ Decon 7 – Hydrogen peroxide mixture, 15 minutes ○ Hydrogen peroxide 10%, contact time for 15 minutes ○ Peracetic acid (Dahlgren solution) ○ pH adjusted bleach with vinegar ▪ Equipment <ul style="list-style-type: none"> ○ Hydrogen peroxide solution. Avoid using equipment in potentially contaminated areas. ▪ First responders <ul style="list-style-type: none"> ○ Soap and water, followed by oxidizing agent to destroy the fentanyl in the soapy water. ▪ Clothing/Uniforms <ul style="list-style-type: none"> ○ Soap and water will not destroy fentanyl. An oxidizing agent will break it down. Soap and water will just move it somewhere else in solution until it dries out. ▪ Avoid hand sanitizers and bleach products
<input type="checkbox"/>	MITIGATION AND CONTAINMENT	<ul style="list-style-type: none"> ▪ Avoid activities that can create airborne movement of powders ▪ Keep containers closed, limit movement of containers.
<input type="checkbox"/>	CLEAN UP & DISPOSAL	<ul style="list-style-type: none"> ▪ Level of contamination will be based off incident observations, including level of detection, activities, and extent of contamination observed. ▪ Results on detection equipment will assist with determining if contamination exists. Non-detect on the IR equipment (FTIR/Raman) will rule out more concentrated drugs with pure fentanyl. ▪ Evaluate if sampling multiple points will help determine the extent of contamination: furniture, floors, etc. ▪ Consider condemning a residence if pure product is found along with gross contamination, similar to methamphetamine procedures. ▪ Provide responsible party and/or property owner with industrial hygienists list if needed. ▪ Licensed clean up contractor may be needed ▪ Waste Management <ul style="list-style-type: none"> ○ Decontaminated fentanyl debris is not listed as a hazardous waste and do not generally meet the definitions of a characteristic hazardous waste. ○ Liquid formulations of fentanyl may be rendered safe with absorbent. ▪ Contact CA DTSC for disposal of drug related hazardous waste
<input type="checkbox"/>	CHEMICAL INFORMATION	<p>Lethal Doses:</p> <ul style="list-style-type: none"> ▪ Fentanyl: 2mg or 2000 micrograms ▪ Carfentanil: 0.2mg or 200 micrograms ▪ DOT Hazard Class 6.1 ▪ Primarily a solid, liquid formulations are possible ▪ Vapor Pressure: NA ▪ Density: heavier than air ▪ Specific Gravity: NA ▪ % LEL: NA ▪ pH: varies, fentanyl citrate is 4.0-7.5 ▪ Solubility: varies, soluble in salt form

<input type="checkbox"/>	USEFUL CONTACTS	■ Department of Homeland Security NTF-10	
<input type="checkbox"/>	POSSIBLE CUTTING AGENTS	<ul style="list-style-type: none"> ■ Vitamin C ■ Baby Formula ■ Cellulose ■ Acetaminophen ■ Pectin (thickening agent) ■ Caffeine 	<ul style="list-style-type: none"> ■ Noscipine (cough medicine) ■ Lidocaine ■ Stearic Acid ■ Sugars: <ul style="list-style-type: none"> ○ Mannitol, lactose, Inositol
<input type="checkbox"/>	TECHNICAL REFERENCES	<ul style="list-style-type: none"> ■ https://www.epa.gov/sites/production/files/2018-07/documents/fentanyl_fact_sheet_ver_7-26-18.pdf ■ https://www.cdc.gov/niosh/topics/fentanyl/risk.html ■ http://www.amlegal.com/pdffiles/SanDiegoCo/ord10536.pdf : County Code 68.803 	
<input type="checkbox"/>	NOTIFICATIONS	<ul style="list-style-type: none"> ■ NTF ■ Local Law Enforcement ■ CUPA ■ Fire ■ Poison Control ■ Medical Examiner ■ HHSA 	
<input type="checkbox"/>	INCIDENT TERMINATION	<ul style="list-style-type: none"> ■ Safe to reoccupy? No established standards to date. San Francisco Public Health draft guidance indicates clean up level to be less than 0.1 µg/100cm² ■ Follow DEH Protocol for Fentanyl Contaminated Properties ■ Obtain approval for condemnation based on activities, observations, and/or field readings. Post warning signs with caution tape and notify property owner of clean-up process. Reference County Code 68.803. 	