

DEADLY TOXIC LITHIUM BATTERY SMOKE COVER-UP IN LA FIRES AND MOSS LANDING DISASTER

When lithium batteries burn they release many toxic chemicals that mutate babies in the womb, cause cancer, brain and lung damage and many other deadly medical problems. These dangers are verified in hundreds of federal and university reports.

Officials covered up and minimized these dangers in order to protect Elon Musk's battery cartel. Moss Landing power plant people claim to have monitoring systems to detect all of the cancer-causing and bio-deadly vapors from lithium battery fires but that appears to be a lie. In the reports below, a number of chemicals are listed arising from lithium fires. Moss Landing and Local officials have no such resources and alert systems to detect and report these chemicals including:

Acetylene Black (CAS# 1333-86-4) 0-2%

Biphenyl (CAS# 92-52-4) 0-15%

Diethyl Carbonate (CAS# 105-58-8) 0-15%

Dimethyl Carbonate (CAS# 616-38-6) 0-15%

Ethyl Methyl Carbonate (CAS# 623-53-0) 0-15%

Ethylene Carbonate (CAS# 96-49-1) 0-15%

Graphite (CAS# 7782-42-5) 7-22%

Lithium Cobalt Oxide (CAS# 12190-79-3) 15-30%

Lithium Hexafluorophosphate (CAS# 21324-40-3) 0-5%

Lithium Tetrafluoroborate (CAS# 14283-07-9) 0-5%

n-Methyl Pyrrolidinone (CAS# 872-50-4) 0-1%

Oxalic Acid (CAS# 144-62-7) 0-1%

Propylene Carbonate (CAS# 108-32-7) 0-15%

...and BURNING lithium ion combined with burning Tesla plastic and Chassis metal DOUBLES the amount of toxins!

Tesla Fire Victims' and relatives demand answers from Tesla over hidden 'death trap' toxic smoke from Tesla car batteries.

TOXIC_TESLA_SMOKE

Tesla Fire Victims' and relatives demand answers from Tesla over hidden 'death trap' toxic smoke from Tesla car batteries.

- Over 1000 scientific papers on chemical analysis now confirm the known danger...
- Many reporters are calling "BULLSHIT" on the NHTSA Tesla studies.
- It's not "Green" to buy a Tesla, It's Toxic! Workers overseas DEAD! Drivers in fires POISONED!
- Detailed State-of-the-art laboratory "smoke room" spectrograph chemical analysis proves lethal toxins
- Hair, blood & tissue analysis can prove if you were exposed by being near a Tesla fire
- Chemical "cancer-cocktail" from Tesla smoke detailed in element-by-element breakdown
- Firefighters warned: "Burning lithium ion batteries can produce toxic fumes including HF, oxides of carbon, aluminum, lithium, copper, and cobalt. Volatile phosphorus pentafluoride may form..."
- Tesla "GIGA-FACTORY" a deathplant for Mexican workers? Economically & biologically "Fatal" to closest town if a fire erupts?
- Tesla lobbyists & campaign backers force NHTSA to close investigation rather than complete it and reveal the depth of the cover-ups and extensive safety defects. Tesla coddled BECAUSE OF TESLA'S INVESTORS CAMPAIGN FINANCING

Owners, Family members and BYSTANDERS whose loved ones were poisoned in auto accidents linked to a defect in Tesla cars demanded answers -- and accountability from Tesla in light of safety cover-ups Congress has exposed by GM and Toyota. The implication of corruption involving federal funding has arisen.

Many reporters are calling "BULLSHIT" on the Moss Landing and NHTSA Tesla studies.

First the head of NHTSA quits over revelation of Tesla safety cover-ups, then the new staff state that there are no "actual defects" even though the numbers of cars-in-flames vs. cars produced exceeds every other car company. They ignore the proven toxic gas charges in the same week that the EPA is being investigated for exposing citizens to 10 times less toxic vapors in laboratory "test chambers", without full consent. These are gasses that 8 different federal agencies say are "lethal in exposure effect." They ignore the fact that the Tesla battery pack is exposed on every edge and across the bottom and state that "no complex engineering studies have been performed".

NHTSA ignores the review of a rolled-over Tesla with burning lithium above you and dripping molten metal and plastic dripping down on you. NHTSA ignores the recommended fully charged battery shock and moisture tests recommended by experts and fails to publish all FOIA materials. Very clearly White House staff and campaign investors have ordered NHTSA to wave Tesla through at a time when GM and Toyota are undoing federal hearings and billion dollar fines for equally dangerous circumstances. One has to wonder if NHTSA staff will lose their pensions if they go to Federal prison for rigging safety reviews.

If even one battery goes off, poisonous gases and vapors are released. At least one of the thousands and thousands of batteries under your seats in a Tesla will eventually vent toxic gas even if you do not get caught in one of the catastrophic Tesla or Fisker fireball explosions.

The odds are not in your favor with over 7000 possible battery failures in each car. These are gasses that 8 different federal agencies say are "lethal in exposure effect." Tesla is being coddled for campaign favors.

The burning Tesla battery chemicals are known to CAUSE: Neurological dysfunction, cancer, lung damage, liver damage and other long-term fatality repercussions.

If you were within 800 feet of a Tesla on fire, you need to see your doctor, even if you were only driving, or a neighbor to a home where a Tesla fire took place, or walking or by-standing nearby. Tesla has been fully aware of this per a report from their battery team, including Bernad Tse, of Tesla, for over 10 years ago. Certain elected officials and DOE staff have personal investments in

Lithium Ion profiteering, thus certain federal officials are resistant to regulating these batteries. These facts can now be proven via multiple federal investigations and liability lawsuits are certain to follow. The head of the NHTSA, A Mr. Strickland, recently quit over these charges.

Calling the Tesla cars a "death trap," they said the company knew for years the vehicles were dangerous -- but their sons, daughters and relatives are potentially dying "because they were a cost of doing business Tesla's and Elon Musk's way." Said one concerned owner: "The GM defect kills you fast but the Tesla defect kills you slowly over time, it isn't right that Tesla never fully disclosed this to owners and the public. I have a baby and a teenager. What will happen to them from exposure to this stuff?"

TOXIC_TESLA_FIRE_VAPORS

For years, Elon Musk, and Tesla executives, have adopted a: "Nothing to see here, move along, move along" approach when confronted with the dangers.

Now the proof is irrefutable, GM and Toyota have been busted doing similar cover-ups of potentially lethal defects, Congress is investigating and the public are demanding answers!

A report submitted to Congress discloses: "A fellow CPF'r whom I hold in high regard for his experience and knowledge for guidance. Unfortunately, he was unavailable. OH wait, here it comes again!! another episode, this time though without the chest pain and not as severe as the first one. We rushed to the hospital, wife driving me, and into the emergency room and to the doctor. We explained what had happened, and surprisingly the doctor was well versed in this type of poisonous inhalation. He could relate to all the symptoms, and concluded I had inhaled dangerous Hydrofluoric acid vapor. The delayed reaction, he said, was due to the bloodstream absorbing the vapor and hence the shortness of breath, chest pain, and weak limbs. A third episode took place while in the emergency room but this time it was much less than the first or second episodes. It has been about 14 hours since this incident, I did not get much sleep last night but not because I felt bad, only very scared.

Hydrofluoric acid will, with a possible delayed effect, affect the nervous system, respiratory tract, lungs, and impair the cardiovascular system. Those effects are from inhalation only, more severe effect

including weakening of the bones and a host of other things if ingested or from wounds such as LunarModules. i.e. skin contact.

WHAT I LEARNED AND MY DOCTOR SAID TO ME:

- 1) DO NOT DELAY a trip to the emergency room in the hospital if you have inhaled, ingested, or came into skin contact with Lithium battery venting.
- 2) Have someone else drive you to the hospital if possible. You could become quickly and without warning completely impaired. Oxygen and emergency treatment by qualified personnel are your only chances of survival after cardiac arrest or if you are unable to breathe.
- 3) DO NOT ASSUME you are OK if you as much as think you've been exposed to battery fumes, EVEN IF the battery seems to be OK and explosions are not a requisite.
- 4) Keep handy antidote in the form of calcium gluconate saline solution for inhalation or in gel form for skin cuts or burns. Intravenous solutions are a possibility and must be administered by hospital personnel.

This incident was very mild compared to other cases, but I assure you fellow CPF'rs, it is very scary and dangerous. A battery can start to vent if mishandled or dropped as in my case, it does not have to explode. It happened to a name brand chinese made CR123, it does not have to be a "cheap battery", this one cost me \$2.00 a piece. Don't ever pull the vent holes in the positive end of the battery up close to your face or nose like I very stupidly did. If you suspect a battery is venting, just toss it aside."

Even then, Sony and Dell had millionaire recalls of laptop computers with defective batteries. The department of transportation has prohibited the carriage of Lithium cells aboard passenger aircraft Hydrofluoric acid is indeed a dangerous chemical, both as a fume and in liquid form. IMO, as a chemist it should not be allowed in consumer products.

ABSTRACT

Wang, Q., Sun, J. and Chu, G., 2005. Lithium Ion Battery Fire And Explosion. Fire Safety Science 8: 375-382. [doi:10.3801/IAFSS.FSS.8-375](https://doi.org/10.3801/IAFSS.FSS.8-375)

With the extensive applications of lithium ion batteries, many batteries fire and explosion accidents were reported. Base on the combustion triangle theory, the combustion triangle contributions of lithium ion battery were analyzed. By using C80 micro calorimeter, the thermal behavior studies on the materials show that the flammable electrolyte, oxygen generated by charged cathode and anode decomposition, and exothermic reaction heats form the combustion triangle together. The thermal runaway of working materials in lithium ion battery system was studied with common used battery materials, and the no return temperature TNR was calculated is 75oC and the self-accelerating decomposition temperature (SADT) is 66.5oC.

Further analysis shows that the lithium ion battery reaction chain according with Domino effect, therefore, the lithium ion battery fire and explosion developing sequences was drawn by "Domino chain."

In the related GM Death investigation, General Motors' new CEO, Mary Barra, and the head of the nation's auto safety watchdog are set to testify before Congress Tuesday afternoon about the defect in small cars that is linked to 13 deaths.

In written testimony released ahead of the House subcommittee hearing, acting National Highway Traffic Safety Administration chief David Friedman said GM had information connecting defective ignition switches to the non-deployment of air bags, but didn't share it until last month. Committee members will press Barra and Friedman to explain why neither the company nor the safety agency moved to recall millions of small cars with a defective ignition switch, even though GM knew of the problem as early as 2001.

"Sitting here today, I cannot tell you why it took years for a safety defect to be announced in (the small car) program, but I can tell you that we will find out," Barra said in prepared testimony submitted to the subcommittee.

Barra plans to apologize to family members of victims, according to her prepared testimony. But the family members, appearing alongside lawmakers, aired their frustration and grief Tuesday morning.

Ken Rimer, whose teenage stepdaughter was killed in a 2006 crash in Wisconsin, recalled how she died.

"What was to be a simple shopping excursion turned into a death trap as their vehicle, without any warning, lost power," he said. "The steeringwheel lock, power breaks, no longer worked and the safety airbags were turned off. When all of this happened the car followed a path off the road, went airborne over an adjoining driveway, crushed a phone box, and tragically collided with a group of trees."

He added: "Would fixing the problem when it was discovered saved these two girls' lives and the lives of many others? Yes. Should GM be able to hide behind their bankruptcy and not accept the responsibility and liability of these young lives? No. Please help us in standing up for what is right. GM knew it was wrong. GM hid it during their bankruptcy proceedings. GM is liable for these young deaths."

TESPLUGS

Tesla is accused of also knowing and hiding the threats, as disclosed in internal Tesla documents, Tesla patent filings and by former Tesla staff.

GM has recalled 2.6 million cars for the faulty switch. That recall prompted GM to name a new safety chief and review its recall processes.

GM continued its efforts to show regulators and consumers that it is more focused on safety, announcing the recall of 1.5 million more vehicles on Monday for a power steering problem.

With Monday's recall, GM has now recalled 6.3 million vehicles since February. GM estimates the actions will cost it \$750 million.

The House hearing -- and a separate one Wednesday before a Senate subcommittee -- will likely be tense and emotional. At least a dozen family members of victims will attend, wearing blue shirts featuring a photo of 16-year-old Amber Marie Rose, who was killed in a 2005 Cobalt crash, and the words "Protect Our Children."

Barra may try to limit her answers to Congress, citing an ongoing internal review and government investigations.

"When we have answers, we will be fully transparent with you, with our regulators, and with our customers," she said in the prepared testimony.

That could test the patience of committee members, who will want to know immediately why GM failed to protect its customers in this case.

Laura Christian, birth mother of Amber Marie Rose, a teenager who died in a 2005 Maryland crash involving a Chevrolet Cobalt, said about 30 family members met with Barra and two GM attorneys Monday night.

All got a chance to tell their stories to GM's new CEO, but Christian said they got little reaction. "A lot of, 'I'm so sorry, I'm so sorry,' " Christian said.

GM would not comment on details of the meeting.

Congress also wants to know if it needs to strengthen a 2000 law intended to improve communication between automakers and the government. [tesfire22](#)

The information found leads one to believe that fumes from lithium batteries are very dangerous.

According to Energizer "Fire fighters

should wear self-contained breathing apparatus. Burning lithium ion batteries can produce toxic fumes including HF, oxides of carbon, aluminum, lithium, copper, and cobalt. Volatile phosphorus pentafluoride may form at a temperature above 230° F."

http://data.energizer.com/PDFs/lithiumion_psd.pdf

Hydrofluoric acid is mentioned because if the battery _burns_ then one of the ingredients (the lithium trifluoromethanesulfonate) can produce hydrofluoric acid. This only happens if the battery burns or "vents with flame". An analogous material would be the Teflon that is used to make non-stick cooking pans - if it burns it too will emit hydrofluoric acid.

Here is the MSDS sheet for a very common LG 18650 Li-Ion cell:

http://www.hp.com/hpinfo/globalcitiz...s_lg_liion.pdf

Molice1:

<http://www.tek.com/Measurement/cgi-b...ameSet=service>

Battery Space Li-Ion:

<http://www.batteryspace.com/prod-specs/MSDSLion.pdf>

International Battery Li-Ion:

http://www.internationalbatteryinc.c...SDS_090105.pdf

As you get more recent MSDS sheets for Li-ion cells you will find the following standard disclaimer:

"Hydrofluoric Acid Exposure During Fire Fighting This information is given for use of professional fire fighters responding to a warehouse fire where fire from other materials may incinerate battery. This section is provided solely in case of exposure, during fire fighting, to the combustion by-products. Hydrofluoric acid is not present in

the product. Contact with battery causes none of the following symptoms.

Hydrofluoric acid is extremely corrosive. Contact with hydrogen fluoride fumes is to be avoided.

Permissible exposure limit is 3 parts per million.

In case of contact with hydrogen fluoride fumes, immediately leave the area and seek first aid and emergency medical attention. Symptoms may have delayed onset.

Fluoride ions penetrate skin readily causing destruction of deep tissue layers and even bone. Fluoride interferes with nerve impulse conduction causing severe pain or

absence of sensations. Immediately flush eyes or skin with water for at least 20 minutes to neutralize the acidity and remove some fluoride. Remove and destroy all

contaminated clothing and permeable personal possessions. Before re-use, impermeable possessions should be soaked in benzalkonium chloride after washing.

Following flushing of the affected areas, an iced aqueous solution of benzalkonium chloride or 2.5 % calcium gluconate gel should be applied to react with the fluoride ion.

Compresses and wraps may be used for areas where immersion is not practical. Medicated dressing should be changed every 2 minutes. Exposure to hydrofluoric acid

fumes sufficient to cause pain requires immediate hospitalization for monitoring for pulmonary edema."

So, where does this hydrofluoric acid come from?

Reviewing MSDS (Material Safety Data Sheet) for many of the cell layer separators (you can find a foot or two of it wrapped inside the Lithium Ion cell) show the generation of HF

(Hydrogen Fluoride) and PFIB (Perfluoroisobutylene) from heat decomposition (such as a cell venting/explosion). HF, is a clear gas, will become Hydrofluoric Acid upon contact with even

minute amounts of moisture (such as humidity). The United States Army Medical Research Institute of Chemical Defense has classified PFIB, also a clear gas, as a pulmonary

agent.

Usually, items like this get glossed over in MSDS sheets. Another item found in Lithium Ion cells that has fluorine in it is the Lithium Hexafluorophosphate or LiPF₆. This can also break down during venting/explosion and contribute to the generation of hydrofluoric acid.

A MSDS for LiPF₆:

<http://www.gfschemicals.com/Search/MSDS/2534MSDS.PDF>

One company gives a better breakdown of what is in their product, instead of calling it proprietary:

TESLA Lithium Ion Batteries Contain, at least, (but there may be more):

Acetylene Black (CAS# 1333-86-4) 0-2%

Biphenyl (CAS# 92-52-4) 0-15%

Diethyl Carbonate (CAS# 105-58-8) 0-15%

Dimethyl Carbonate (CAS# 616-38-6) 0-15%

Ethyl Methyl Carbonate (CAS# 623-53-0) 0-15%

Ethylene Carbonate (CAS# 96-49-1) 0-15%

Graphite (CAS# 7782-42-5) 7-22%

Lithium Cobalt Oxide (CAS# 12190-79-3) 15-30%

Lithium Hexafluorophosphate (CAS# 21324-40-3) 0-5%

Lithium Tetrafluoroborate (CAS# 14283-07-9) 0-5%

n-Methyl Pyrrolidinone (CAS# 872-50-4) 0-1%

Oxalic Acid (CAS# 144-62-7) 0-1%

Propylene Carbonate (CAS# 108-32-7) 0-15%

...and BURNING lithium ion combined with burning Tesla plastic and Chassis metal DOUBLES the amount of toxins!

One of our erstwhile cpfers showed me a link to some testing that was done with Li-Ion cells:

<http://www.pcpitstop.com/pcsafety/video.asp>

Hydrofluoric acid is very dangerous, here is the MSDS for hydrofluoric acid

<http://www.bu.edu/es/labsafety/ESMSD...l#anchor888417>

Breaking out the Li-Ion chemicals:

Energizer Lithium Ion:

Acetylene Black (CAS# 1333-86-4) 0-2%

<http://www.itcilo.it/english/actrav/...ic/1333864.htm>

Biphenyl (CAS# 92-52-4) 0-15%

Synonyms: Diphenol; 1,1'biphenyl; phenylbenzene

3. Hazards IdentificationEmergency Overview

QUOTE: "WARNING! HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY AFFECT

LIVER, CENTRAL AND PERIPHERAL NERVOUS SYSTEMS. MAY CAUSE ALLERGIC SKIN REACTION.

Potential Health Effects

Inhalation:

Inhalation of dust or vapors can irritate the mucous membranes and respiratory tract. Other symptoms may parallel those from ingestion exposure.

Ingestion:

Exerts toxic effects on the central nervous system and liver. Symptoms may include headache, diffuse gastro-intestinal pain, nausea, numbness, body aches, and general fatigue.

Skin Contact:

May cause irritation. May be absorbed through the skin with symptom paralleling those from ingestion exposure. May cause allergic reaction in sensitive individuals.

Eye Contact:

Vapors and dust cause eye irritation.

Chronic Exposure:

Chronic exposure may cause peripheral nerve damage and liver injury.

Aggravation of Pre-existing Conditions:

No information found. (additional disclosures required)

<http://www.jtbaker.com/msds/englishhtml/b2347.htm>

Diethyl Carbonate (CAS# 105-58-8) 0-15%

"EXPOSURE- PREVENT GENERATION OF MISTS! INHALATION Cough. Nausea. Sore throat.

•SKIN- Protective gloves. Rinse and then wash skin with water and soap.

•EYES Redness. Pain."

<http://www.cdc.gov/niosh/ipcsneng/neng1022.html>

See effects on animal testing, tumors and reproductive

<http://www.cdc.gov/niosh/rtecs/ff958940.html>

Dimethyl Carbonate (CAS# 616-38-6) 0-15%

•INHALATION Cough.

•SKIN Protective gloves.

•EYES Redness.

<http://www.cdc.gov/niosh/ipcsneng/neng1080.html>

ACUTE TOXICITY DATA AND REFERENCES: see 50% mouse kill levels

<http://www.cdc.gov/niosh/rtecs/fg6ddd0.html>

Ethyl Methyl Carbonate (CAS# 623-53-0) 0-15%

Ethylene Carbonate (CAS# 96-49-1) 0-15%

Information pertaining to particular dangers for man and environment

R36 Irritating to eyes

Primary irritant effect:

-on the skin: Irritant to skin and mucous membranes.

-on the eye: Irritating effect

Ethylene Carbonate is irritating to the skin, eyes, mucous membranes and upper respiratory tract.

<http://www.alfa.com/MSDSPDF/English/A15735.pdf>

Graphite (CAS# 7782-42-5) 7-22%

Lithium Cobalt Oxide (CAS# 12190-79-3) 15-30%

Information pertaining to particular dangers for man and environment

R 40 Limited evidence of a carcinogenic effect.

R 43 May cause sensitization by skin contact.

Substance is listed in Toxic Substance Control Act (TSCA) inventory.

Acute toxicity:

Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

on the eye: Irritating effect.

Sensitization: Sensitization possible through skin contact.

Subacute to chronic toxicity:

Cobalt is an experimental neoplastigen and tumorigen. It is an experimental carcinogen of the connective tissue and lungs. Cobalt metal and inorganic compounds are classified as an animal carcinogen by the ACGIH. Ingestion may cause burning in the mouth, esophagus, and stomach.

Inhalation of dusts and fumes may cause irritation of the respiratory tract and labored breathing and coughing. Sensitization, nausea,

flushing of the face and ringing in the ears is also possible.

<http://www.alfa.com/MSDSPDF/English/14049.pdf>

Lithium Hexafluorophosphate (CAS# 21324-40-3) 0-5%

3. HAZARDS IDENTIFICATION

Designation HARMFUL ~ IRRITANT

Risk Phrases R20/21/22 Harmful by inhalation, in contact with skin and if R36/37/38 Irritating to eyes, respiratory system and skin.

Hazardous Products of Combustion may include : hydrogen fluoride (hydrofluoric acid), phosphorus pentoxide, phosphoric acid.

6. ACCIDENTAL RELEASE MEASURES

Personal Protection Avoid inhalation or contact of spilled material with skin or clothing. Wear protective equipment including rubber gloves, and eye protection. Keep unprotected persons away.

<http://www.alfa.com/MSDSPDF/English/B20964.pdf>

11. Toxicological information:

Fluorides may cause salivation, nausea, vomiting, diarrhea and abdominal pain, followed by weakness, tremors, shallow respiration, convulsions and coma. May cause brain and kidney damage. Chronic fluoride poisoning can cause severe bone changes, loss of weight, anorexia, anemia and dental defects. Inorganic phosphorus compounds may cause irritation and hemorrhages in the stomach as well as liver and kidney damage. Bone structure may be attacked, especially the jaw and teeth.

<http://www.alfa.com/MSDSPDF/English/11529.pdf> Lithium Tetrafluoroborate (CAS# 14283-07-9) 0-5%

3. HAZARDS IDENTIFICATION

Designation HARMFUL ~ IRRITANT

Risk Phrases R20/21/22 Harmful by inhalation, in contact with skin and if swallowed. R36/37/38 Irritating to eyes, respiratory system and skin.

10. STABILITY AND REACTIVITY

Specific Hazard Incompatibilities Strong oxidising agents. Strong acids. Decomposition Hazardous products of decomposition may include : hydrogen fluoride (hydrofluoric acid).

<http://www.alfa.com/MSDSPDF/English/A10607.pdf>

Eye Contact: Immediately flush eyes with plenty of water for at least 20 minutes. Assure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical

attention if irritation persists, or symptoms of overexposure become apparent.

Skin Contact: Immediately wash skin with plenty of water for at least 20 minutes, while removing contaminated clothing and shoes. Get medical attention especially, if irritation develops, persists, or symptoms of overexposure become apparent.

<http://www.alfa.com/MSDSPDF/English/L16800.pdf>

n-Methyl Pyrrolidinone (CAS# 872-50-4) 0-1%

EXPOSURE

PREVENT GENERATION OF MISTS!

- INHALATION Headache.
- SKIN MAY BE ABSORBED! Dry skin. Redness.
- EYES Redness. Pain. Blurred vision.

CHEMICAL DANGERS:

The substance decomposes on heating or on burning producing toxic fumes including nitrogen oxides, carbon monoxide

EFFECTS OF SHORT-TERM EXPOSURE:

The substance irritates the eyes and the skin. If this liquid is swallowed, aspiration into the lungs may result in chemical pneumonitis.

<http://www.cdc.gov/niosh/ipcsneng/neng0513.html>

MUTATION DATA AND REFERENCES:

sex chromosome loss and nondisjunction REPRODUCTIVE EFFECTS DATA AND REFERENCES:

Numerous present, see link below:

<http://www.cdc.gov/niosh/rtecs/uy585930.html>

Oxalic Acid (CAS# 144-62-7) 0-1%

FIRE Combustible. Gives off irritating or toxic fumes (or gases) in a fire.

EXPOSURE

AVOID ALL CONTACT!

IN ALL CASES CONSULT A DOCTOR!

- INHALATION Sore throat. Cough. Burning sensation. Shortness of breath. Laboured breathing. Symptoms may be delayed (see Notes).
- SKIN Redness. Skin burns. Pain. Blisters. First rinse with plenty of water, then remove contaminated clothes and rinse again. Refer for medical attention.

- EYES Redness. Pain. Loss of vision. Severe deep burns.
- INGESTION Sore throat. Burning sensation. Abdominal pain. Vomiting. Drowsiness. Shock or collapse. Convulsions.

CHEMICAL DANGERS:

On contact with hot surfaces or flames this substance decomposes forming formic acid and carbon monoxide. The solution in water is a medium strong acid. Reacts violently with strong oxidants causing fire and explosion hazard.

EFFECTS OF SHORT-TERM EXPOSURE:

Corrosive. The substance is corrosive to the eyes, the skin and the respiratory tract. Corrosive on ingestion. Inhalation of aerosol may cause lung oedema (see Notes). The substance may cause effects on the kidneys.

Exposure far above the OEL may result in death. Medical observation is indicated. The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential. Immediate administration of an appropriate spray, by a doctor or a person authorized by him/her, should be considered. Do NOT use in the vicinity of a fire or a hot surface

<http://www.cdc.gov/niosh/ipcsneng/neng0529.html>

Additional effects:

<http://www.cdc.gov/niosh/rtecs/ro256250.html>

Propylene Carbonate (CAS# 108-32-7) 0-15%

Primary irritant effect:

on the skin: irritant to skin and mucous membranes.

on the eye: irritating effect

Subacute to chronic toxicity:

Internal exposure to propylene carbonate may cause somnolence or altered sleep time.

<http://www.alfa.com/MSDSPDF/English/L06006.pdf>

These are just a few links and is not at all inclusive, but just to show some of the items about the chemicals present in the Tesla Li-Ion cells. There are over a thousand technical documents about these lithium ion smoke dangers published.

WARNING: THIS CHEMICAL DATA DOES NOT INCLUDE the ADDITIONAL TOXINS created from the COMBINATION of the above chemicals

COMBINED with BURNING TESLA Car Body Plastic and CHASSIS METALS!!!

Ingestion of internal material from Tesla batteries will kill you, your children or your pets.

Tesla batteries are made overseas because workers who make them die from exposure to the chemicals.

Good luck to Tesla with their

GIGA-FACTORY death warehouse for Mexican workers in New Mexico. Tesla, already under investigation by OSHA, has found a new way to tell OSHA to screw themselves!

They KNEW:

Laptops draw scrutiny from airline-safety officials

August 15, 2006 12:00 AM

By Corey Dade The Wall Street Journal

Passengers aboard Lufthansa Flight 435 at Chicago O'Hare International Airport on May 15 were settling in for the nine-hour haul to Munich, Germany, when a burning odor floated into the first-class cabin. According to witnesses, the luggage bin above seat 2A was burping smoke. Flight attendants evacuated first class just before a computer case in the compartment began to spit fire. The crew grabbed extinguishers and sprayed the bin. Someone swung open a cabin door, snatched the case and tossed it onto the ramp. The case erupted in flames. As passengers watched, fire trucks -- then the bomb squad -- roared to the scene and put out the blaze. But they found no terrorist device. Instead, authorities discovered a charred laptop computer and a six-pack of melted lithium-ion batteries.

Long before last week's foiled plot to blow up airlines using material secreted in carry-on luggage, a growing number of transportation and product-safety officials had expressed concerns that batteries in laptops and other electronics pose a serious risk to airplanes -- for reasons completely unrelated to global terror. Although the risk is small, the Consumer Product Safety Commission has documented 339 cases of lithium and lithium-ion batteries for portable electronics overheating, emitting smoke and fumes or exploding since 2003. There is no record of a serious injury or death, but the Federal Aviation Administration has logged 60 incidents since 1991. In the past two years, six incidents have occurred on aircraft, including five fires and an overheated flashlight that had to be handled with oven mitts.

In February, a United Parcel Service Inc. plane full of packages -- including lithium-ion batteries -- was engulfed in flames while landing in Philadelphia. Investigators haven't reached a final ruling on the cause but continue to closely examine the melted shipment of batteries. In October 2004, a plane carrying Vice Presidential candidate John Edwards made an emergency landing after a lithium-ion battery exploded in the hand of a television newsman. Worries about the possible dangers are serious enough that the National Transportation Safety Board held a two-day hearing in July in Washington to discuss the safety of lithium-ion batteries on passenger and cargo planes and the investigation into the UPS fire. No formal proposal for new regulations has yet been put forward, but regulators are discussing options ranging from tightening manufacturing guidelines for the batteries to potentially restricting their use on passenger jets.

A series of fires dating back to 1999 led to a federal regulation in 2004 banning cargo shipments of an earlier generation of batteries from the bellies of passenger aircraft. These batteries, known as lithium batteries, differ from lithium-ion models in that they can't be recharged. The rule called lithium batteries on commercial airliners "an immediate safety risk" but did not prohibit them from carry-on or checked luggage. Today, the more-advanced lithium-ion batteries account for the majority of battery incidents. There are currently no controls on them in carry-on or checked bags, nor when they are shipped in the cargo holds of passenger planes. Major airlines say they will comply with whatever safety regulators determine. "It's too early to weigh in on the issue," says Victoria Day, a spokeswoman with the airline trade group Air Transport Association. "We understand the experts are working on the matter, and we'll just have to wait and see what they say."

No action is expected in the near future until the Federal Aviation Administration completes its testing of lithium-ion batteries, which it began in 2004.

A trade group representing battery makers has defended the manufacturing practices of its member companies. "Based on the millions of lithium-ion batteries in use today and the exceptionally small number of cases in which a battery malfunction has occurred, we believe these batteries are safe and reliable when used according to manufacturers' guidelines," said Norm England, president and chief executive of the Portable Rechargeable Battery Association, on the group's Web site.

The U.K. last week banned laptops and all other electronics in the cabins of flights from or through the U.K. after information surfaced that the alleged plotters planned to use an electronic device to detonate bombs. The ban, which British Airways extended to its flights into the U.K., was excruciating to many fliers.

"I feel naked," said Jon Thompson last week, after being told to check his laptop at the British Airways ticket counter at Atlanta's Hartsfield-Jackson International Airport. About to board a flight to London, he hastily wrapped a shirt around his computer for extra cushioning and jammed it into his suitcase.

Capable of storing an enormous amount of energy in a small package, the lithium-ion battery is perhaps the most popular power source for notebook computers, MP3 players and high-performance cellular phones. The nickel-metal-hydride battery is the closest competitor on the laptop and mobile phone markets but requires more care to prolong battery life and generates less power. The lithium-ion model holds a charge longer, is more powerful and has the capacity to produce ever-greater power as manufacturing technology advances.

But its fragile chemistry requires circuitry to control peak voltage. Product-safety officials say that as technology enhancements produce models packed with more power, more of them are overheating or blowing up.

The hazards have prompted dozens of manufacturers to recall more than two million rechargeable batteries for cellphones, laptops, portable DVD players and digital cameras since 2003. Major U.S. computer makers Hewlett-Packard Co., Apple Computer Inc. and Dell Inc. each cited reports of overheating and fire risk as reasons for recalling a total of 300,700 units of laptop batteries world-wide since May 2005. "The affected batteries could overheat, posing a fire hazard to consumers," said an Apple statement posted on its Web site detailing a program in which consumers can exchange their recalled batteries for new ones.

The three companies say the recalled batteries were made by suppliers based in Asia, and that batteries now for sale are safe. "It's safe to assume that, yes, we are selling a safe product," says Hewlett-Packard spokesman Ryan Donovan. Dell said the defects discovered in the cells of its batteries have been corrected. An Apple spokeswoman declined to comment beyond the company's online statement.

Cellphones are of less concern in the air because their use is barred during flights. In general, they also operate at lower energy levels than computers and thus pose less of a fire risk.

The problem, experts say, is "thermal runaway" -- a chemical reaction inside a battery cell that generates intense heat so rapidly that it flares out of control. Most of the failures are traced to a short circuit in the cell or the wires that connect the cell to contact points on the battery pack.

Richard L. Stern, associate director of compliance at the Consumer Product Safety

Commission, says tiny metal shards can contaminate the battery pack during assembly and later pierce the insulation separating the positive and negative terminals. The opposite poles touch and create an electrical spark. A defective or damaged battery that is vigorously jostled -- like a laptop rattling around in a luggage compartment -- can trigger a flare.

Many of the airplane incidents involved batteries purchased separately from the computer. "The trend with smoke or fires would be some type of after-market use, like with spare batteries," says Bill Wilkening, who enforces hazardous-materials regulations at the Federal Aviation Administration. Product regulators say replacements marketed as compatible with many different devices frequently aren't. Some of them, including a significant number of counterfeits, lack circuitry that protects the battery cell from overcharging.

"That's where you tend to see a lot more allegations of fire or explosions," Mr. Stern says. "It's difficult for consumers to know which are good and which aren't, unless you're an electrical engineer."

The passenger whose case caught fire on the Lufthansa flight, Dana Smith, told officials the batteries were bought on eBay and possibly were "not built to the original specifications,"

according to the incident report filed with federal regulators. Mr. Smith couldn't be reached at his Munich address. Lufthansa, in Frankfurt, Germany, said it has no position on whether lithium batteries should be further restricted, but will comply with any government regulations.

But sometimes, batteries seem to blow up for no clear reason. A sound technician with ABC News had just decided to change a battery as the Edwards' campaign's chartered Boeing 727 lifted off from Raleigh-Durham International Airport four days before the 2004 election. In the rear of the cabin, the sound man pulled a nine-volt battery from his equipment and it burst into flames. Someone screamed "fire!," according to official accounts of the incident and witnesses.

Within a few seconds, Secret Service agents barreled into the cabin and extinguished the fire. The plane immediately returned to the airport.

"It was a little scary. It was dark, it was smoky," Mr. Edwards said in a recent interview. He was in the front of the cabin with his wife and two children and campaign staff. "It got people

worked up."

Nearly three months earlier, a box of batteries caught fire aboard a FedEx Corp. cargo plane in Memphis, Tenn., moments before it departed for Paris. The fire damaged most of the other boxes packed in the huge freight container. FedEx and Memphis firefighters put out the blaze on the ground.

Marvin Sudduth, a safety manager in FedEx's dangerous goods section, examined the container of 64 batteries more than three hours later-and they were still sparking. "I had to jerk my hand back pretty quick," he says. "Not one of my top 10 things to experience."

FedEx says the shipper violated federal guidelines requiring the batteries be packaged in a plastic sheath to protect them from making contact with other objects. Instead they were rolled in cardboard wrapping and placed in a cardboard box with metal tools used to install the batteries. Mr. Sudduth said the tools probably shifted during transit and struck the batteries, causing sparks. The Memphis-based air cargo carrier says it has tightened standards to exceed federal requirements. It now refuses to carry hazardous materials without first confirming they have been packaged according to federal standards.

The potential danger to airlines first surfaced in 1999 involving the lithium "primary" battery that preceded the rechargeable lithium-ion version. After two pallets holding 120,000 of those batteries unloaded from a passenger plane went up in flames at Los Angeles International Airport, the NTSB requested an investigation of the products by the FAA. In 2004, the federal agency that regulates the transport of dangerous substances, now called the Pipeline and Hazardous Materials Safety Administration, ended the transport of those batteries in the cargo holds of passenger carriers. After the FedEx incident earlier in 2004, the FAA began a still-ongoing investigation into lithium-ion batteries.

The most dramatic mishap so far involved the UPS jet descending on Philadelphia International Airport from 31,000 feet the night of Feb. 7. "Smells like wood burning. Smell that?" the co-pilot told his two fellow crew members about 25 minutes before landing, according to the flight cockpit recording. The flight engineer left his seat and entered the cargo hold to check for smoke. He later told investigators that nearly every inch was filled with freight, and he had no path to walk through the holding area for a closer look. So he aimed a flashlight at the upper cargo deck and ran it the length wall. He smelled smoke but found no fumes and returned to the cockpit.

At about 4,000 feet and a few minutes before landing, the warning light for smoke on the main deck flashed on. "Alright," the first officer said, "I'm turning into the airport then." Air traffic control cleared the plane to land. Then the fire warning indicator for the lower rear cargo area lit, and the captain ordered his crew to put on their oxygen masks.

On final approach some functions on the instrument panel began to fail, and smoke streamed into the cockpit. The captain landed the plane and opened his window to breathe but inhaled a thick plume of smoke. The co-captain leaned out his window and was choked with smoke. In a raspy voice, he managed to radio the tower: "UPS Flight 1307 evacuating the aircraft."

One by one, they disappeared in the haze through the back of the cockpit and made their way off the plane.

The fire raged for four hours, with the DC-8 sitting on the tarmac, destroying the cargo and burning two gigantic holes through the top of the fuselage. In the months since then, investigators have methodically excluded possible causes of the fire. They say there is no sign that airplane wiring or systems were the culprit. Containers of hazardous material being shipped on the plane don't appear to be the cause. Several partially burned lithium-ion computer batteries are still undergoing tests.

"It is not known at this time the role that these types of batteries may have played in the fire," NTSB lead investigator Frank Hilldrup said at the federal hearing in July. "Nevertheless, secondary lithium batteries, as well as primary, can present fire hazards. Several lithium battery incidents have occurred in recent years."

Of the more than 60 incidents of batteries overheating since 1991:

Short circuits appear to be the primary cause

Unexplained fires/explosions usually involve lithium-based batteries

Almost all incidents involve unlabeled "nonregulated" or "excepted" batteries

No incident involved batteries in retail packaging

Almost all incidents detected on the ground

Source: Federal Aviation Administration

Read more: <http://www.post-gazette.com/business/technology/2006/08/15/Laptops-draw-scrutiny-from-airline-safety-officials/stories/200608150233#ixzz2xetLkzkW>

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<http://www.youtube.com/watch?v=gCT3Li5dfZE>

For more TESLA SAFETY REVIEW DATA, [CLICK HERE>>>](#)

Tesla lobbyists & campaign backers force NHTSA to close investigation rather than complete it and reveal the depth of the cover-ups and extensive safety defects.

MOVIE-POSTER

Here is how this is going to happen: In a few years there will be a number of consumer lawsuits in court, Tesla will say "we didn't know that", then all of these documents will come out, then it will become absolutely clear that Tesla knew about this danger for ages and covered it up. Then Tesla will lose the lawsuits and either go out of business or have to pay billions of dollars like Toyota and soon, GM. Those politicians and administrators who covered up will fry and lose their pensions. That's all there is to it.

FG- LAT

-----In Gear

Tesla battery plant faces skepticism from stakeholders, analysts

It's all about the numbers: If Tesla Motors intends to sell more of its electric cars, it'll need more batteries to power them. And while the company has ambitious plans for its own battery manufacturing plant, some of Tesla's backers aren't yet committed to the project.

By John Voelcker, Guest blogger / April 6, 2014

A man looks around Tesla Motors' Model S P85 at its showroom in Beijing. Panasonic is considering investing in a U.S. car battery plant planned by Tesla Motors, with total investment

estimated by one source at around \$979 million.

Kim Kyung-Hoon/Reuters/File

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Elon Musk, CEO of startup electric-car maker Tesla Motors, is no doubt used to skepticism.

GreenCarReports The website focuses on the auto industry's future, the evolution of cars beyond fossil fuels, and the green movement's relevance to car shoppers today. For more

stories on green cars, click here.

Related storiesNow he faces new doubts over the company's plans for a massive "gigafactory" costing as much as \$5 billion to manufacture more lithium-ion cells than any other plant in the world.

Having mostly convinced disbelieving analysts, journalists, and industry colleagues that Tesla can at least design, engineer, build, and sell good-looking high-performance all-electric

luxury sedans, Musk may not pay a lot of attention to "You can't" noises from critics.

Panasonic: large risk

But even Tesla's lithium-ion cell supplier Panasonic--which owns a small share of the company--hasn't yet committed to participating in the gigafactory plan.

Bloomberg noted last week that the Japanese electronics giant's president, Kazuhiro Tsuga, told reporters the project would pose an "investment risk [that] is definitely larger" than the company prefers.

Panasonic prefers to "make investments step by step," he said, adding that he "would like to cooperate" with Musk's plans. He also noted that Panasonic's battery production "depends" on Tesla sales, which it monitors closely.

Tsuga's comments may reflect the slow pace of building consensus for such a major investment on Panasonic's part.

VW, Daimler perplexed

But it is hardly the only voice saying the gigafactory plan could be too large, and too much for Tesla to bite off.

An article yesterday in The Wall Street Journal quoted Harald Kroege, the head of Daimler's electric-vehicle efforts, who noted that the gigafactory plan had "some huge disadvantages" to go along with its benefits.

(Daimler, which makes Mercedes-Benz and Smart cars, owns a small stake in Tesla Motors too, as does Toyota.)

And Volkswagen CEO Martin Winterkorn said he didn't "quite get it," noting that VW would not consider opening its own battery plant, as it had enough suppliers for its needs.

Few details

Musk announced a handful of high-level details about the proposed plant, which could be the world's largest single factory, in late February.

The need is clear: Even at a production rate of about 25,000 cars a year, Tesla used one-third of the world's electric-car batteries.

To scale up to 100,000 Model S sedans and Model X crossovers by 2016, he needs to quadruple that supply--which Panasonic and Tesla together expect to happen.

But if the company starts production of its next model, a lower-cost sedan often dubbed the "Model E," it will need multiples of its current battery supply.

And to hit the target price of \$35,000 or less for the new car, which is expected to offer at least 200 miles of rated range, Tesla will need every bit of the 30-percent cost reduction it says it can achieve with the gigafactory.

Can Tesla sell 500,000 cars?

In the end, as investment journal Barron's notes, the gigafactory will only pay off if Tesla can reliably sell half a million cars a year.

(The Barron's article also noted that Tesla has not responded to any of its inquiries since Musk hung up on its reporter a year ago.)

If Tesla can sell that many cars by 2020, it is likely to become one of the top three plug-in electric car makers in the world--along with Nissan and General Motors.

Meanwhile, rivals say they will keep pace with its cost reductions--although they are likely banking on far lower volumes of electric-car sales that Musk and Tesla anticipate.

More details are likely to emerge about the Tesla gigafactory, perhaps including a site selection. The candidates are Arizona, Nevada, New Mexico, and Texas, each of which putting together incentives to offer to Tesla.

POCKET

Tax Analysts

The leading global publisher of tax news, analysis and commentary Taxes 4/07/2014

Tesla, Taxes, And Free-Market Hypocrisy

David Brunori, Contributor

TTesla Model S

1 of 18

Photos courtesy Tesla Motors

Tesla Model S

The all-electric Tesla Model S sedan.

Tesla Motors TSLA -3.31% Inc. makes electric cars — and they must be pretty good cars because they cost \$70,000. Despite selling really expensive cars, Tesla has long been the darling of the left. Nothing says “I am committed to saving the polar bears” better than driving a luxury, battery-powered car.

For several years, Tesla has been in a fight with the states. Tesla does not use dealerships. It sells its cars on its website and in showrooms. Almost every state bans or limits the sale of automobiles directly to customers, which is terrible and reflects the power of auto dealerships. The dealerships want you to buy your car from them because, well, that’s how they make money. And because they are wealthy and connected, they have persuaded many states to make it hard for automakers to sell directly to people. After all, if you were buying a car directly

from a manufacturer, who would sponsor the local Little League teams?

The auto dealers argue that direct sales will result in massive layoffs, disruptions in the community, and less odious car-selling techniques. Actually, they're not making the last argument, but they're saying that without dealerships, customers will never figure out where or how to get their cars repaired. By the way, the dealerships pay lawmakers with campaign contributions and promised future support if the lawmakers keep Tesla out of their states.

Tesla's response is that the car dealerships' position violates every notion of free markets. Tesla argues that prohibiting direct sales protects only the dealerships and harms the consumer. Tesla is right. There's no reason to prohibit a consumer from buying directly from the manufacturer. Cutting out the middleman is generally a good thing — unless you're the middleman.

So Tesla is right — but few companies owe their existence to the government and the public dole as Tesla does. The idea that Tesla can enter a legislature and sing the praises of free markets with a straight face is rich. In 2010 the company received a \$500 million loan from the U.S. Department of Energy. It prospers because of the federal tax credit of up to \$7,500, plus \$2,500 in California credits for each new purchase. It receives credits from the California Air Resources Board, which it sells for a large profit. Last year the company received \$34 million in tax breaks from California as an incentive to build a plant in the San Francisco area. Tesla has the gall to encourage consumers to ask state lawmakers to subsidize the purchase of their vehicles. Free markets, indeed.

Tesla wants to expand its operations and is considering investing up to \$5 billion for a new plant in Nevada, Arizona, New Mexico, or Texas, all of which ban direct sales except Nevada.

Tesla wants Texas to repeal its direct sale prohibition, but while the Lone Star State is offering infrastructure money, it's not budging on the direct sale issue. Arizona has already introduced a bill to lift its ban on direct sales and Gov. Jan Brewer (R) is promising tax breaks. New Mexico Gov. Susana Martinez (R) has promised that the state will do whatever is necessary to land the expected 6,500 jobs. Rumors are that in lieu of tax breaks, Nevada is willing to purchase all the land Tesla needs for the plant. You can be sure the free-market-loving Tesla lobbyists are in the middle of the fight.

Why would Tesla do something so dangerous, thinking nobody would notice? Greed!

Tesla can play all the "ignore the facts" games they want, but when the lawsuits start, Tesla will lose in a very big way!



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Toxic fluoride gas emissions from lithium-ion battery fires -

Nature

Lithium-ion battery fires generate intense heat and considerable amounts of gas and **smoke**.

Although the emission of **toxic** gases can be a larger threat than the heat, the knowledge of such ...

Author: Fredrik Larsson, Petra Andersson, Per Blomqvist, Bengt-Erik Mellander
Published: 2017

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Spotlight on: Health risks from gases released in lithium-ion battery fires

Sep 12, 2023 "Traditionally where **fires** and **smoke** are concerned one would stay low to avoid inhalation, doing so where **lithium battery fires** are concerned is likely to prove problematic," observes Dalus. The toxicity of gases given off from any given **lithium-ion battery** differ from that of a typical **fire** and can themselves vary but all remain either ...

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Is the Smoke from a Lithium-Ion Battery Harmful? Toxic Emissions and ...

Dec 9, 2024 **Lithium**-ion batteries contain various chemicals, including **lithium**, cobalt, and solvents. When these batteries experience damage, overheating, or malfunction, they can release **toxic smoke**. This **smoke** typically contains harmful substances such as heavy metals and organic compounds. Inhaling **lithium-ion battery smoke** can lead to respiratory issues.

3. Videos for **toxic smoke from lithium battery fires**



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CALIFORNIA: FLAMES DEVOUR BATTERY PLANT



[LA Fire: Battery Storage Plant Catches Fire In California, Forcing State's Lates...](#)

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California Battery Plant Fire Causes Evacuations And Closures

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Toxic smoke from battery fires a hidden - The Loadstar

Sep 7, 2023He explained: "Traditionally, where **fires** and **smoke** are concerned, one would stay low to avoid inhalation - doing so where **lithium battery fires** are concerned is likely to prove problematic. Given the hazardous nature of this vapour, the best course of action is to evacuate the area and leave the incident response to the emergency services ...

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Toxic fluoride gas emissions from lithium-ion battery fires

Lithium-ion battery fires generate intense heat and considerable amounts of gas and **smoke**. Although the emission of **toxic** gases can be a larger threat than the heat, the knowledge of such emissions is limited. This paper presents quantitative ...

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Are Lithium-Ion Battery Fumes Toxic? Health Risks, Exposure, And Fire ...

Nov 10, 2024 Inhaling fumes from **lithium**-ion batteries can be **toxic** and poses serious health risks. Symptoms include coughing, difficulty breathing, and lung irritation. ... Short circuits, punctures, or excessive heat can trigger **fires**. These situations can release **toxic smoke** and ignite surrounding materials. ... You can safely manage **fire** hazards from ...

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Toxicology of the Lithium Ion Battery Fire - Mass.gov

kWh **battery** system, e.g. a small stationary energy storage. - The immediate dangerous to life or health (IDLH) level for HF is 0.025 g/m³ (30 ppm) and the lethal 10 minutes HF toxicity value (AEGL-3) is 0.0139 g/m³ (170 ppm). - The release of hydrogen fluoride from a Li-ion **battery fire** can therefore be a

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[Canadian Firefighter Magazine](https://www.cdnfirefighter.com)

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A growing safety concern: Health hazards of lithium-ion battery fires

Sep 12, 2024 **Toxic** gas emissions: **Lithium-ion battery fires** release a cocktail of **toxic** gases, including hydrogen fluoride (HF), which can cause severe respiratory distress, skin burns and eye irritation. Unlike traditional **fires**, these gases are not just **smoke** but a mix of highly **toxic** substances that can be lethal in confined spaces. Thermal runaway: ...

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What causes lithium-ion battery fires? Why are they so intense? And how ...

Sep 28, 2023 **Lithium-ion battery fires** are rare, ... **toxic** fumes. When **lithium-ion** batteries catch **fire** in a car or at a storage site, they don't just release **smoke**; they emit a cocktail of dangerous gases ...

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Review of gas emissions from lithium-ion battery thermal runaway ...

May 15, 2024 **Lithium-ion** batteries (LIBs) present **fire**, explosion and toxicity hazards through the release of flammable and noxious gases during rare thermal runaway (TR) events. This off-gas is the subject of active research within academia, however, there has been no comprehensive review on the

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Burning Teslas in L.A. Add to Toxic Mix Hindering Cleanup

Today **Lithium** batteries from **Tesla** Inc., along with those from other carmakers, have added to the mix of **toxic** materials requiring specialized removal in the wake of the **fires**, delaying the **fire** victims

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Burning Teslas, fried battery storage systems in Los Angeles add to ...

Today **Lithium** batteries from **Tesla** Inc., along with those from other carmakers, have added to the mix of **toxic** materials requiring specialized removal in the wake of the **fires**, delaying the **fire** victims

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Burning Teslas, fried battery storage systems in Los Angeles...

Lithium batteries from **Tesla** Inc., along with those from other carmakers, have added to the mix of **toxic** materials requiring specialized removal in the wake of the **fires**, delaying the **fire** victims' return to their properties. RELATED: Huge **fire** at Moss Landing battery plant spurs evacuations, road closures, sends out plumes of **toxic** smoke

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Burning Teslas in LA Add to Toxic Mix Hindering Wildfire Cleanup

TodayElectric cars add a new dimension to the mess left by **fires** Specialized removal means longer delays delays for victims As the smoke clears from devastating Los Angeles wildfires, efforts to clean up the affected areas are being complicated by burnt-out electric and hybrid vehicles and home-battery ...

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Burnt Teslas block LA wildfire victims from returning home

TodayThe aftermath of the **LA** wildfires has seen a new hazard emerge due to **Tesla's** and other carmakers' lithium batteries complicating cleanup operations.. These batteries require specialized removal from the **toxic** debris scattered by the **fires**, further postponing residents' return to their homes. "A lot of the cars in the evacuation area were lithium batteries," stated Jacqui Irwin, who represents ...

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L.A.'s Comeback Delayed by Toxic Fumes From Burning Teslas

Today **L.A.'s** Comeback Delayed by **Toxic** Fumes From Burning **Teslas** **TOXIC WASTE** Last year, the **Tesla** Model Y was the most popular car among **L.A.** buyers through September.

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Tesla big-rig battery burns in crash; fumes ... - Los Angeles Times

Aug 20, 2024 A **Tesla** big rig crashed in Northern California on Monday and ignited the vehicle's battery, starting a **fire** that filled the air with **toxic** fumes and forced the closure of Interstate 80 in both ...

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Toxic Fumes Spewing From Tesla Semitruck Forces California ... - Newsweek

Aug 21, 2024 Caltrans image of the burning **Tesla** semi (main) and close-up of a scale model of a **Tesla** Semi. The semi's lithium-ion batteries caught on **fire**, burning the nearby vegetation and sending out **toxic** ...

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Los Angeles firefighters 'take extra precaution' extinguishing Teslas ...

6 days ago Firefighters in Los Angeles are taking extra precautions when extinguishing the batteries of **Teslas** and other electric vehicles (EVs).. Many lithium-powered vehicles were destroyed in the devastating wildfires that have ripped through southern California this week.. Drivers were forced to abandon their cars on main roads to flee amid evacuation orders - and firefighters were tasked with ...

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Tesla Semi battery fire in California rages at 1,000 degrees, spews ...

Aug 20, 2024 A **Tesla** Semi crashed in Northern California on Monday, triggering a hazardous materials incident after the battery ignited and sparked a raging **fire** that spewed **toxic** fumes, authorities said.