

Product: MARINE ENGINE  
Model: C12.9 MARINE ENGINE TPJ00298  
Configuration: C12.9 Marine Engine TPJ00001-UP

**Technical Information Bulletin**

**Hexavalent Chromium Has Been Detected In Certain Caterpillar Engines {0353, 0680, 1059}**  
Media Number -M0116139-01      Publication Date -01/06/2020      Date Updated -01/06/2020  
**Caterpillar: Confidential Yellow**

i08130236

## Hexavalent Chromium Has Been Detected In Certain Caterpillar Engines {0353, 0680, 1059}

SMCS - 0353; 0680; 1059

**Caterpillar Products****Caterpillar Engines****Prime Product that contains a Caterpillar Engine**

Caterpillar has been advised by a third party and has confirmed through independent lab testing that hexavalent chromium (yellow powder) has been detected on exhaust and heat shield systems on Caterpillar engines. Caterpillar products meet all hexavalent chromium applicable regulations and requirements where originally sold.

Hexavalent chromium may be encountered in-use from sources such as aftermarket parts, interactions with maintenance materials and/or certain operating environments. While lab testing is the only sure way to know if hexavalent chromium is present, an indication that hexavalent chromium may be present are yellow residual deposits (See the Illustration below), typically in areas of high heat such as on exhaust manifolds or exhaust insulation.

---



Illustration 1  
Exhaust system examples of yellow residual deposits

g06515618

If such yellow residual deposits are found on the engine, engine component parts, or associated equipment or package, Caterpillar recommends following local regulations and guidelines and good hygiene and safe work practices. Precautionary examples are listed below:

- Avoid creation of airborne dust containing the yellow deposits. If generation of airborne dust cannot be avoided, it is advisable to use a face shield or goggles and a negative pressure half mask respirator with P-100 cartridges (or equivalent).
- Wear personal protective equipment to prevent skin and eye exposure. Wear cut proof nitrile gloves and a disposable protective suit.
- Wash hands and face with soap and water prior to eating, drinking, smoking or during rest room breaks to prevent ingestion of any yellow powder.
- Avoid release of the residual deposits to the environment. All waste generated during the repair process including cleaning towels, and used Personal Protective Equipment (PPE) need to be collected and stored in a proper container pending disposal as hazardous waste.

In the event that hexavalent chromium is discovered, Caterpillar recommends following all local guidelines and wearing the correct PPE during the decontamination and removal process.

There are multiple methods of cleaning material that can be considered. Once such method is to utilize a solution consisting of 10% citric acid, 10% ascorbic acid and 80% distilled water to convert the hexavalent chromium powder to a trivalent chromium state.

Special care should be taken to prevent agitating the powder and creating airborne dust.

A process of either spraying the surface and wiping down or a process of soaking a towel in the solution and wiping down may be utilized. Please follow all local guidelines for disposal of all materials used during the cleaning process.

Should you need any further information, help or assistance relating to Caterpillar's processes or the compliance associated with these products, please do not hesitate to contact your local Caterpillar representative.

Additional information on the health effects of Hexavalent Chromium is available via the url below or please review your local guidelines.

- <https://www.osha.gov/Publications/OSHA-3373-hexavalent-chromium.pdf>

---

[Copyright 1993 - 2020 Caterpillar Inc.](#)  
[All Rights Reserved.](#)  
[Private Network For SIS Licensees.](#)

Tue Jun 16 2020 18:06:24 GMT+0200 (Paris, Madrid (heure d'été))  
I050fxv