# REACH

# **Cummins Alternator**

#### Introduction

According to Article 33 (Duty to communicate information on substances in articles) of the REACH regulation, EU REACH Regulation 1907/2006 (and UK equivalent), "Any supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0,1% weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance."

#### **Declaration of Use of Candidate List substances in Products**

Cummins works actively to avoid and phase out Prohibited Substances in its products. See more information on Prohibited Substances on the <u>Prohibited Substances</u> page at public.cummins.com.

Under REACH, an alternator is considered a complex object because it is made up of more than one article. On a complex object level, the alternator does not contain any Candidate List substance of a concentration above 0.1% by article weight. However, constituent articles (sub-components) may contain such concentrations.

This declaration covers sub-components for all variants of the alternator and reflects the most recent update of the REACH Candidate List.

This declaration lists all Candidate List substances which could be found in concentrations above 0.1% by weight in sub-components. The identified parts are listed by part number, name, and information on where to find those parts in the alternator, and a reference to the contained substance(s).

## Change Log

Issue 1: Initial release.

Issue 2: Removed "Imidazolidine-2-thione (2-imidazoline-2-thiol".

Changed text from "is" to "could be" in Identified Sub-Components Contained in Alternator section.

Dated 5-2-23.

Issue 3: Added SVHC O,O,O-triphenyl phosphorothioate (CAS No: 597-82-0). Dated 2-28-25.

Substance ID	Name (en-GB)	CAS Number	EC Number	Date of Inclusion
А	Lead	7439-92-1	231-100-4	27/06/2018
В	N,N-dimethylacetamide	127-19-5	204-826-4	19/12/2011
С	Cobalt(II) Sulphate	10124-43-3	233-334-2	15/12/2010
D	O,O,O-triphenyl phosphorothioate	597-82-0	209-909-9	21/01/2025

#### **Identified Candidate List Substances Contained in Alternator**

### **Identified Sub-Components Contained in Alternator**

Substance concentration of 0.1% by weight could be exceeded in the parts and/or components denoted using curved brackets (e.g. {Flange bearing 3850-0134477-000 (285888916)}). Cummins part numbers are provided as a unique identifier for that component and are identified using parentheses inside the curved brackets.

ID	Path to Sub-Parts Containing Substances	Substance ID
1	[ALTERNATOR 24SI 12V 130A] [Stator Asm] [Stator Asm Varnished] [Lam & Winding Asm] [Lamination asm coated] {Laminations asm (10503589)}	
2	[ALTERNATOR 24SI 12V 130A] [RECTIFIER ASM] [Negative Heat Sink Asm] [Pressfit Diode 50A LV (A/C; Negative)] {Remy (10514392)}	
3	[Alternator 22SI 12V 130A] [SRE Frame & Stator ASM P] {10A4G-F Axial Diode (10A6S)}	
4	[Alternator 22SI 12V 130A] {Stick Screw (10488604)}	А
5	[Alternator; C6P_120A 14V_TCL] [Drive end shield] {Drive End Shield (F000BL20B8)}	
6	[Alternator; C6P_120A 14V_TCL] [Rectifier] [Heatsink Assembly] {Heat sink (F000BL2112)}	
7	[Alternator; C6P_120A 14V_TCL] [Rectifier] {Slip Ring End Shield (F000BL20C1)}	А
8	[Alternator; C6P_120A 14V_TCL] [Rectifier] [Heatsink Assembly] [Heat sink] {Diode ZR1450 (F00M992946)}	
9	[ALTERNATOR] [ASSY. FINAL] [D.E. BRACKET ASSY.] {D.E. BRACKET M/C. (26224868)}	А
10	[ALTERNATOR] [ASSY. FINAL] [S.R.E BRACKET ASSY.] {S.R.E BRACKET M/C (26224870)}	
11	[ALTERNATOR] [ASSY. FINAL] [RECTIFIER ARRANGEMENT] [POSITIVE HEATSINK ASSY.] {POSITIVE HEATSINK M/C (26216954)}	

# REACH

ID	Path to Sub-Parts Containing Substances	
12	[ALTERNATOR] [ASSY. FINAL] [RECTIFIER ARRANGEMENT] [NEGATIVE HEATSINK ASSY.] {NEGATIVE HEATSINK M/C (26216957)}	
13	[ALTERNATOR 28SI 12V 200A] [SRE FRAME ASM] [Pressfit Diode 80A LV (A/C; Negative)] {Remy (10511571)}	А
14	[Alternator Asm] [Electronics Asm] [Positive Rectifier Asm] [Positive Rectifier Asm] {Pressfit Diode 50A LV (C/C; Positive); BorgWarner (10510970)}	А
15	[Alternator Asm] [De Frame Asm] [DE FRAME MACH] {DE FRAME (10544612)}	А
16	[Alternator Asm] [De Frame Asm] [De Frame Asm] [SRE FRAME MACH] {SRE FRAME (10544617)}	А
17	[Alternator Asm] [De Frame Asm] {Pressfit Diode 50A LV (A/C; Negative); BorgWarner (10515291)}	А
18	[ALTERNATOR 24SI 12V 130A] [Stator Asm] [Stator Asm Varnished] [Lam & Winding Asm] [PAPER-ARAMID] {Four Ply Aramid/Polyester Laminate (M5867-006)}	
19	[Alternator 22SI 12V 130A] [SRE FRAME & STATOR ASM P] [STATOR ASM] [LAM & WINDING ASM] [PAPER-ARAMID 1.585"] {M2444-007 PAPER-ARAMID (M2444-007)}	В
20	[ALTERNATOR 28SI 24V 110A] [STATOR ASM] [LAM & WINDING ASM] [Lamination asm coated] [Copper Wire #15.75 (M-7253)(HGP-EXTRA)] [Four Ply Aramid/Polyester Laminate] {Four Ply Aramid/Polyester Laminate (M5867- 001)}	В
21	[ALTERNATOR 28SI 12V 200A] [STATOR ASM] [STATOR ASM VARNISHED] [LAM & WINDING ASM] [PAPER-ARAMID 2.000"] {Four Ply Aramid/Polyester Laminate (M5867-001)}	В
22	[Alternator 22SI 12V 130A] [SRE FRAME & STATOR ASM P] {Screw ASM (10475784)}	С
23	[Alternator] [Ball bearing] {Grease (H080A)}	D

## Information on Safe Use of the Substance(s) in the Sub-Components

In general, the Cummins Engine manual provides information on the safe handling of Cummins' engines and components. If available to Cummins, specific REACH Article 33 information on the safe use of sub-components can be found here:

ID	Information on Safe Use
	No Information Available