

Certificate CN17/30647

The management system of



Cardolite Chemical Zhuhai Co., Ltd.

Unified Social Credit Code 914404007408492299

Business Registration Address: No. 1248, Ninth Shihua Road, Gaolan Port Economic Zone, Zhuhai City, Guangdong Province, P.R. China

Business Operation Address: No. 1248, Ninth Shihua Road, Gaolan Port Economic Zone, Zhuhai City, Guangdong Province, P.R. China

has been assessed and certified as meeting the requirements of

GB/T 23331-2020/ ISO 50001:2018 RB/T 114-2014

For the following activities

Management of the purchasing, receiving/storage, processing and transformation, distribution and consumption of energy, in addition to application of energy saving technology in manufacture of chemical products including friction materials and epoxy formulations. Electricity, natural gas and steam are the major source of energy.

For the detail information regarding boundaries and comprehensive energy consumption, please see the appendix with the same number of this certificate and it is the component of this certificate.

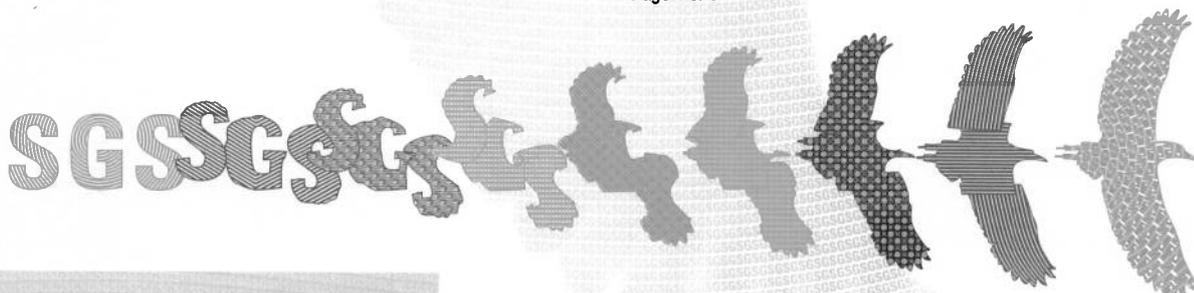
This certificate is valid from 17 June 2021 until 24 May 2023 and remains valid subject to satisfactory surveillance audits. Re certification audit due a minimum of 60 days before the expiration date Issue 4. Certified since 25 May 2017.

Authorized by

SGS CSTC Standards Technical Services Co., Ltd.
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The certification information can be verified on the web site of Certification and Accreditation Administration of the People's Republic of China www.cnca.gov.cn

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Cardolite Chemical Zhuhai Co., Ltd.

Unified Social Credit Code 914404007408492299
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 Zhuhai City, Guangdong Province, P.R. China

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Issue 4



Organization's energy performance indicators and boundaries

Audit type and date	Energy consumption per unit product or unit output value during audit cycle	Boundaries
Transition and Renewal Audit From May 18,2020 To May 20,2020	From May, 2018 to Apr, 2019 Energy consumption per unit product: 0.0384 tce/t Ten thousand yuan of output value of comprehensive energy consumption: 0.0466 tce/¥10K RMB From May, 2019 to Apr, 2020 Energy consumption per unit product: 0.0589 tce/t Ten thousand yuan of output value of comprehensive energy consumption: 0.0763 tce/¥10K RMB	Boundary: Cardolite Chemical Zhuhai Co., Ltd is No. 1248, Ninth Shihua Road, Gaolan Port Economic Zone, Zhuhai City, Guangdong Province, P.R. China. The process of Cardanol: Decarboxylation, distillation. The process of Epoxy agent: Synthetise, extraction, mixing, adjustment, prepolymerization. The process of Epoxy: Mixing, synthetise, extraction, filtration. The process of Friction particles: Mixing, synthetise, cooling, grinding, screening, packing. The main auxiliary production systems include boiler system, exhaust gas incineration system, cooling water system, lighting system, air compressor system, and wastewater treatment system. Output: From May, 2018 to Apr, 2019 Chemical products including friction materials and epoxy formulations: 47688 t From May, 2019 to Apr, 2020 Chemical products including friction materials and epoxy formulations: 50194 t
1 st Sur From May 17,2021 To May 19,2021	From May, 2020 to Apr, 2021 Energy consumption per unit product: 0.0717tce/t Ten thousand yuan of output value of comprehensive energy consumption: 0.0927 tce/¥10K RMB	Boundary: Cardolite Chemical Zhuhai Co., Ltd is located in No. 1248, Ninth Shihua Road, Gaolan Port Economic Zone, Zhuhai City, Guangdong Province, P.R. China. Energy utilization process mainly covers the productive processes including decomposing, distillation, dehydration, adjustment, pre-polymerization, extraction, filtration, mixing, synthesis, cooling, crushing, screening, bagging. The main auxiliary processes including boiler system, exhaust gas incineration system, cooling water system, lighting system, air compressor system, and wastewater treatment system. Output: From May, 2020 to Apr, 2021 Chemical products including friction materials and epoxy formulations:53799 t
2 nd Sur		

证书 CN17/30647

下述组织

卡德莱化工(珠海)有限公司

统一社会信用代码 914404007408492299

注册地址: 中国广东省珠海市高栏港经济区石化九路 1248 号

经营地址: 中国广东省珠海市高栏港经济区石化九路 1248 号

的管理体系已经过审核, 并被证明符合下述要求

GB/T 23331-2020/ ISO 50001:2018 RB/T 114-2014

所涉及的活动范围覆盖

以电力、天然气和蒸汽为主要能源, 摩擦材料和环氧树脂化工产品生产过程涉及到的能源采购、接收/贮存、加工转换、输配、使用等过程的管理及节能技术的应用。

获证组织上年度和本年度的单位产品综合能耗和万元产值能耗及能耗核算边界见标有相同证书注册号的证书附件, 证书附件是本证书的组成部分

该证书的有效期自 2021 年 06 月 17 日至 2023 年 05 月 24 日
并须经过符合要求的监督审核保持有效
持续认证至少在证书失效前 60 天执行
版本号 4. 初始注册日期 2017 年 05 月 25 日

签署

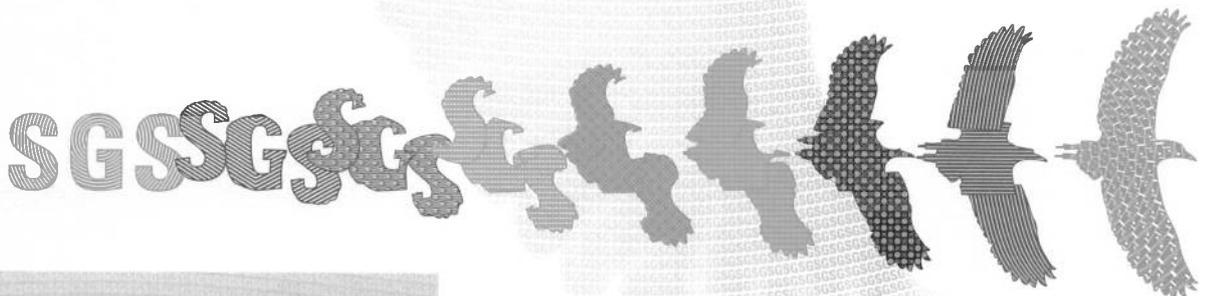
通标标准技术服务有限公司

北京市阜成路 73 号世纪裕惠大厦 16 层 100142

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本证书信息可在国家认证认可监督管理委员会公示的网站 www.cnca.gov.cn 上查询

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卡德莱化工(珠海)有限公司

统一社会信用代码 914404007408492299
中国广东省珠海市高栏港经济区石化九路 1248 号

**GB/T 23331-2020/
ISO 50001:2018
RB/T 114-2014**

版本号 4


获证组织能效指标及能耗核算边界

审核类型及时间	审核周期内单位产品/产值能耗	能耗核算边界
转版+换证审核 2020年5月18~20日	2018年5月-2019年4月 单位产品能耗: 0.0384 tce/t 单位产值能耗: 0.0466 tce/万元 2019年5月-2020年4月 单位产品能耗: 0.0589 tce/t 单位产值能耗: 0.0763 tce/万元	边界: 位于中国广东省珠海市高栏港经济区石化九路1248号的卡德莱化工(珠海)有限公司, 腰果油原油精炼处理工艺: 脱羧, 精馏; 环氧树脂及固化剂生产工艺: 合成, 脱水, 混合, 调整, 预聚合; 环氧树脂生产工艺: 混合, 合成, 抽提, 过滤; 摩擦粉生产工艺: 混合, 合成, 冷却, 粉碎, 筛分, 装袋; 主要辅助生产系统包括锅炉系统、废气焚烧系统、循环水系统、照明系统、空压机系统、废水处理系统等管理过程。 产量: 2018年5月-2019年4月 摩擦材料和环氧树脂化工产品: 47688 吨 2019年5月-2020年4月 摩擦材料和环氧树脂化工产品: 50194 吨
第1次监督 2021年5月17~19日	2020年5月-2021年4月 单位产品能耗: 0.0717 tce/t 单位产值能耗: 0.0927 tce/万元	边界: 位于中国广东省珠海市高栏港经济区石化九路1248号的卡德莱化工(珠海)有限公司, 主要用能过程涵盖脱羧、精馏、脱水、调整、预聚合、抽提、过滤、混合、合成、冷却、粉碎、筛分、装袋等生产过程和锅炉系统、废气焚烧系统、循环水系统、照明系统、空压机系统、废水处理系统等辅助过程。 产量: 2020年5月-2021年4月 摩擦材料和环氧树脂化工产品: 53799 吨
第2次监督 年月日		