CTS References

“It cost you nothing to find out how much you can save $$$”

Chembase International Group Pty Ltd ABN 98 660 823 316

CTS names and terms

Chembase AKA Chembase International and **AKA** Chembase International Group

CTS - Chembase Treatment System **AKA** Chembase.

CTS - Sub-Base Layers - “Road-Base”, “Sub-Base” and “Sub-Grade”.

CTS - Application & Treatment of “Road-Base, “Sub-Base and “Sub-Grade”.

How CTS treats the soil

CTS - Is designed to enhance conventional Lime stabilisation of in-situ material/soil.

CTS - Reacts with clay and hydrated lime to create a matrix which resists water entering the soil profile it also significantly improves stability, increases soil strength (USC and CBR), water resistance and durability.

CTS - It has been designed to stabilise the **“Sub-Base Layers”**, covering “Road-Base”, “Sub-Base and “Sub-Grade” utilising the in-situ soil directly **beneath road surface.**

CTS - Almost any soil type is suitable for treatment with CTS Products.

CTS - Is a “Liquid Organic Polymer based soil treatment” used in the **construction & rehabilitation of roads**.

What CTS delivers

CTS (AKA) Chembase Treatment System stabilisers the "Base Layers" by reducing any water leaking and potholes to the treated area ultimately allowing for less maintenance, reduced costs, and a longevity of the treated area. Below are examples of the many benefits that Chembase Treatment System provides to "Base Layers" treated areas. This include "Liquefaction" (Earthquake resistance) and "Freezing conditions tolerance and much more that is added value.

"It cost you nothing to find out how much you can save $$$"

References 1–5

1. GHD Infrastructure Maintenance Report for Infrastructure Australia 2015
https://www.infrastructureaustralia.gov.au/sites/default/files/2019-07/GHD-Infrastructure-Maintenance.pdf

2. Congressional Budget Office. **Public Spending on Transportation and Water Infrastructure, 1956 to 2014**. March 2, 2015.
https://www.cbo.gov/publication/49910

3. Texas Transportation Institute. 2015 Urban Mobility Scorecard. August 2015.

4. Fay, Laura; Kroon, Ashley; Skor Seth, Ken; Reid, Richard; and David Jones. **Converting Paved Roads to Unpaved.** 2016.
http://www.trb.org/main/blurbs/173716.aspx

5. **TRIP,** The Interstate Highway System turns 60: Challenges to Its Ability to Continue to Save Lives, Time and Money. June 27, 2016.
https://tripnet.org

References 6–10

6 **TRIP,** National Fact Sheet. August 2016.
https://tripnet.org

7 U.S. Department of Transportation, **2015 Status of the Nation's Highways, Bridges and Transit: Conditions and Performance.** January 2017.
https://www.fhwa.dot.gov/policyinformation/statistics/2014/vmt422c.cfm

8 U.S. Department of Transportation, Federal Highway Administration. **Highway Statistics 2014: Chart VMT-422C.** March 21, 2016.
https://www.fhwa.dot.gov/policyinformation/statistics/2014/vmt422c.cfm

9 America gets a D Plus score -
https://www.infrastructurereportcard.org/wp-content/uploads/2016/10/2017-Infrastructure-Report-Card.pdf

10 2017 Infrastructure Report Card
www.infrastructurereportcard.org

References 11–17

11 Hazardous Substances Data Base, 1993, in Tomes Plus Information System Vol.18, Micromedex Inc, Denver, Colorado.

12 Chemical Hazards Risk Information System, 1993, in Tomes Plus Information System, Vol. 18, Micromedex inc., Denver, Colorado.

13 Registry of Toxic Effects of Chemical Substances, 1978 Edition. Richard J Lewis Snr, Ed., US Dept. of Health, Education and Welfare, Cincinnati, Ohio.

14 New South Wales State of the Environment, EPA of NSW 1997

15 Regulatory Impact Statement Proposed Pollution Control Regulation 1998 EPA of New South Wales State Government

16 **Chembase International Technical Manual** (Revision (ii). 22nd April 2019

17 Test Report for California Bearing Ratio of Soils and Gravels, Department of Main Roads NSW, 1988

References 18–24

18 Road Infrastructure Spending
https://www.nationmaster.com/nmx/ranking/road-infrastructure-spending

19 Share of Road Infrastructure Maintenance in Total Road Infrastructure Spending
https://www.nationmaster.com/nmx/ranking/share-of-road-infrastructure-maintenance-in-total-road-infrastructure-spending

20 Spending on Motorway Infrastructure Maintenance
https://www.nationmaster.com/nmx/ranking/spending-on-motorway-infrastructure-maintenance

21 Road Infrastructure Investment
https://www.nationmaster.com/nmx/ranking/road-infrastructure-investment

22 Road Infrastructure Maintenance
https://www.nationmaster.com/nmx/ranking/road-infrastructure-maintenance

23 Length of Motorways
https://www.nationmaster.com/nmx/ranking/length-of-motorways

24 Share of Road Infrastructure Investment in Total Inland Transport Infrastructure Investment
https://www.nationmaster.com/nmx/ranking/share-of-road-infrastructure-investment-in-total-inland-transport-infrastructure-investment

References 25–31

25 Global Trends, Statistics and Insights for Road Infrastructure
https://www.nationmaster.com/nmx/sector/road-infrastructure

26 Global Trends, Statistics and Insights for Road Infrastructure
https://www.nationmaster.com/nmx/sector/road-transport

27 Global Trends, Statistics and Insights for Road Passenger Transport
https://www.nationmaster.com/nmx/sector/road-passenger-transport

28 Global Trends, Statistics and Insights for Road Safety
https://www.nationmaster.com/nmx/sector/road-safety

29 Global Trends, Statistics and Insights for Air Transport
https://www.nationmaster.com/nmx/sector/air-transport

30 Global Trends, Statistics and Insights for Logistics And Freight
https://www.nationmaster.com/nmx/sector/logistics-and-freight

31 Global Trends, Statistics and Insights for Intermodal Transport
https://www.nationmaster.com/nmx/sector/intermodal-transport

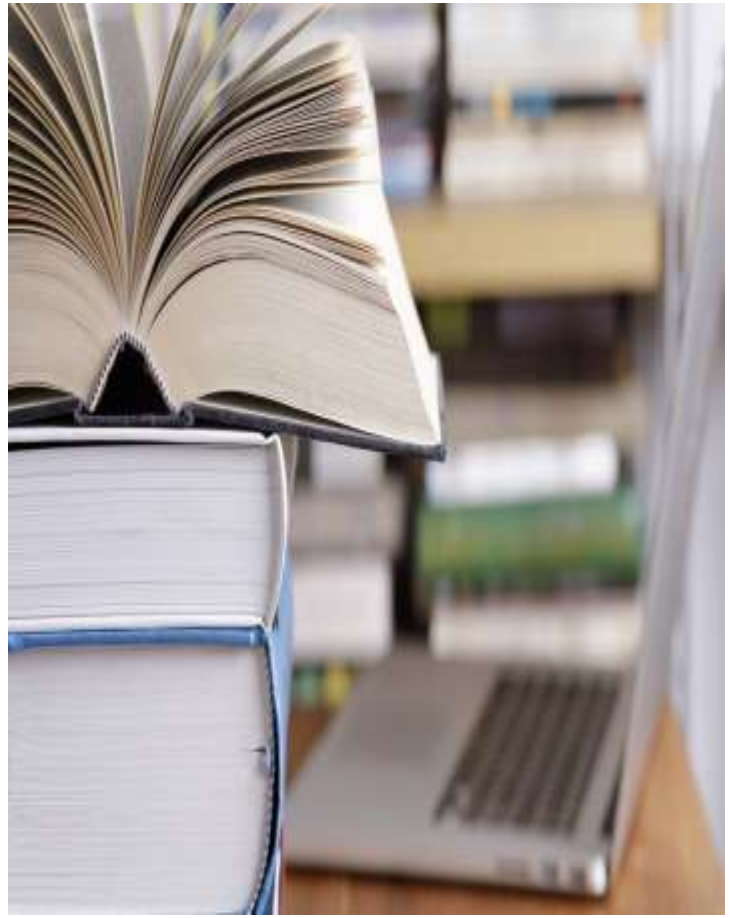
References 32–35

32 Number of Persons Killed in Road Accidents
https://www.nationmaster.com/nmx/ranking/number-of-persons-killed-in-road-accidents

33 Number of Persons Injured in Road Accidents
https://www.nationmaster.com/nmx/ranking/number-of-persons-injured-in-road-accidents

34 Mortality Caused by Road Traffic Injury
https://www.nationmaster.com/nmx/ranking/mortality-caused-by-road-traffic-injury

35 Number of Road Casualties
https://www.nationmaster.com/nmx/ranking/number-of-road-casualties



CHEMBASE INTERNATIONAL GROUP®

“It cost you nothing to find out how much you can save $$$”

Phone: +61 2 8566 3344

Email: Info@chembase.com.au

Website: www.chembase.com.au

Chembase International Group Pty Ltd ABN 98 660 823 316