

MINING INDUSTRY CASE STUDY PLANT BASED HEAVY DUTY DEGREASER

In the Mining Industry, heavy duty degreasing in has historically been performed using kerosene-based solvents, concentrated caustic degreasers or flammable solvents such as MEK or Thinners.

This has presented all industries a real challenge for the management of OHS&E management systems due to the corrosivity, toxicity or flammability of these dangerous and hazardous chemicals.

New plant-based technology is now available which overcomes these hazardous chemical problems, and provides superior degreasing power with minimal issues for workers or environmental management.

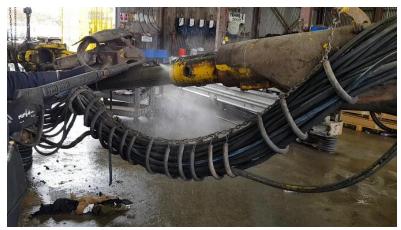
Blue Iron Cove has introduced VG 2020 Heavy Duty Solvent Degreaser which is biodegradable, water dilutable and rinsable, non-toxic, non-flammable and non-corrosive.

VG 2020 becomes the new gold standard for heavy duty degreasing in the Mining, Marine, Oil & Gas and General Industries. Compliance to ISO 14000 and ISO 18000 standards becomes much easier and will reflect in lower life cycle costs for the degreasing processes.

Solvent	Solvency KB Value	HMIS / NFPA	GHS Pictograms	Signal Word	GHS Hazard Statements
n-Butanol	225	300		Danger	H226: Flammable liquid and vapour. H302: Harmful if swallowed. H335: May cause respiratory irritation. H315: Causes skin irritation. H318: Causes serious eye damage. H336: May cause drowsiness or dizziness.
BluelronCove VG2020	180	•	None Required	Warning	H303 May be Harmful if swallowed.
Methylene Chloride	136	200	(1) (3) (3)	Danger	H315 Causes skin irritation. H319 Causes serious eye irritation. H350 May cause cancer. H373 May cause damage to organs through prolonged or repeated exposure. H412: Harmful to aquatic life with long-lasting effects.
Trichloroethylene	129	200		Danger	H315 Causes skin irritation. H319 Causes serious eye irritation. H336 May cause drowsiness and dizziness. H301+H311+H331: Toxic if swallowed, in contact with skin or if inhaled H341 Suspected of causing genetic defects. H351 Suspected of causing cancer. H412 Harmful to aquatic life with long lasting effects.
Benzene	107	330		Danger	H225: Highly flammable liquid and vapor: H396: May be fatal if swellowed and enters airways. H3014H3114H331: Toxic if swellowed, in contact with skin or if inhaled. H335: Causes skin irritation. H319: Causes serious cye irritation. H340: May cause genetic defects. H331: Suppected of causing cancer. H372: Causes damage to organi (Blood) through prolonged or repeated exposure. H310: Very toxic to aquatic life with long- lasting effects.
Toluene	105	230	(1) (3) (3)	Danger	H225: Highly flammable liquid and vapour. H066: Repeated exposure may cause skin dryness or cracking. H304: May be fatal If swallowed and enters airways. H315: Causes skin irritation. H336: May cause drowsiness or dizziness. H360: May damage fertility or the unborn child. H373: May cause damage to organs through prolonged or repeated exposure. H401: Toxic to aquatic life.
Xylene	98	230	(1) (2) (3) (4)	Danger	H226 Flammable liquid and vapour. H312+H332 Harmful in contact with skin or if inhaled. H315 Causes skin irritation. H335 May cause respiratory irritation. H412: Harmful to aquatic life with long-lasting effects
Perchloroethylene	92	200	♦	Danger	H303 May be harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H332 Harmful if inhaled. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure. H411 Toxic to aquatic life with long lasting effects.
D-Limonene	67	200	(1) (3) (3)	Danger	H226 Flammable liquid and vapour. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H410 Very toxic to aquatic life with long lasting effects.
Mineral Spirits	37	200	(1) (3) (3)	Danger	H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H411 Toxic to aquatic life with long lasting effects.
Naptha	34	220	(1) (2) (3) (4)	Danger	H227 Combustible liquid. H302 Harmful if swallowed. H351 Suspected of causing cancer. H372 Causes damage to organs through prolonged or repeated exposure. H410 Very toxic to aquatic life with long lasting effects.
Kerosene	34	200	(1) (2) (3) (4)	Danger	H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H316 Causes mild skin irritation. H411 Toxic to aquatic life with long lasting effects.
Stoddart Solvent	33	220	(1) (3) (4) (4)	Danger	H225 Highly Flammable liquid and vapour. H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H373 May cause damage to organs through prolonged or repeated exposure. H401 Toxic to aquatic life.



VG 2020 is ideal for removing the heaviest oil and grease of excavation equipment, trucks and equipment. It is particularly superior to caustic based degreasers used in workshop wash bays and can eliminate greases to a residue free surface.



Degreasing to get residue free surface

Several examples of heavy-duty workshop degreasing have comprehensively demonstrated the effectiveness of VG 2020 plant-based degreaser at mining workshop facilities in Brisbane, Toowoomba, Pinjarra and Perth.

In summary, VG2020 key benefits include:

- Completely Safe Guaranteed free of hazardous, harmful, irritating, or sensitising substances.
- Non-flammable and non-corrosive.
- Exceptionally powerful solvency properties Very high solvent power KB index greater than 180
- Effortlessly dissolves heavy tars, bitumen, asphaltenes, Blackjack® grease (heavy duty polyurea grease), combustion products, deposits of thermally degraded organic compounds, plus a wide range of other greases and miscellaneous substances
- Immediate dissolution of tar, crude oil, heavy hydrocarbons, combustion residues, greases and lubricants
- Emulsifiable with water for light degreasing at dilutions as low as 5%
- Water rinsible, leaving a clean residue free surface
- Easy to separate water and dissolved hydrocarbons
- Non-flammable can be used cold or on hot surfaces very high flashpoint
- Low volatility, reduction of consumption

VG 2020 is available ex-stock in 20L pails, 200L drums or 1,000L IBCs from Blue Iron Cove warehouses in Brisbane and Perth.