

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

| 1.1. Product identifier | | | | | |
|--|---|--|--|--|--|
| Trade name or designation of the mixture | Comma Xstream G48 | | | | |
| Registration number | - | | | | |
| Synonyms | None. | | | | |
| Product code | XSG*L | | | | |
| Issue date | 31-October-2018 | | | | |
| Version number | 13 | | | | |
| Revision date | 31-October-2018 | | | | |
| 1.2. Relevant identified uses of the substance or mixture and uses advised against | | | | | |
| Identified uses | Antifreeze or coolant | | | | |
| Uses advised against | None known. | | | | |
| 1.3. Details of the supplier of the safety data sheet | | | | | |
| | Manufactured by Moove Lubricants | | | | |
| Address | Dering Way, Gravesend, Kent DA12 2QX | | | | |
| Telephone | +44 (0) 1474 564 311 | | | | |
| Address | Operations Plant Dering Way, Gravesend, Kent DA12 2QX | | | | |
| Telephone | +44 (0) 1474 564 311 | | | | |
| Email | technical@uk.moovelub.com | | | | |
| 1.4. Emergency telephone | | | | | |
| Asia Pacific | + (1) 760 476 3960 | | | | |
| China | + (86) 4001 2001 74 | | | | |
| Europe | + (44) 8 08 189 0979 | | | | |
| Middle East/Africa | + (1) 760 476 3959 | | | | |
| Access code | 334498 | | | | |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards

| Acute toxicity, oral | Category 4 |
|--|---------------------|
| Specific target organ toxicity - repeated exposure | Category 2 (kidney) |

H302 - Harmful if swallowed. H373 - May cause damage to organs (kidney) through prolonged or repeated exposure.

Hazard summary

Harmful if swallowed. May cause damage to organs through prolonged or repeated exposure. Occupational exposure to the substance or mixture may cause adverse health effects.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: Hazard pictograms



Signal word Hazard statements H302 H373

Harmful if swallowed. May cause damage to organs (kidney) through prolonged or repeated exposure.

Precautionary statements Prevention

| P102 P264 P270 | Keep out of reach of children. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. |
|--------------------------------|--|
| Response | |
| P301 + P310 P330 | IF SWALLOWED: Immediately call a POISON CENTRE/doctor. Rinse mouth. |
| Storage | Not available. |
| Disposal | |
| P501 | Dispose of waste and residues in accordance with local authority requirements. |
| Supplemental label information | None. |
| 2.3. Other hazards | Not a PBT or vPvB substance or mixture. |

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

| | % | CAS-No. / EC No. | REACH Registration No. | Index No. | Notes |
|----------------|--------------------------------------|---|-------------------------------|--------------|---|
| | 80 - < 90 | 107-21-1 203-473-3 | 01-2119456816-28 | 603-027-00-1 | # |
| Acute Tox. 4 | ;H302, ST | OT RE 2;H373 | | | |
| , SODIUM | 1 - < 3 | 19766-89-3 243-283-8 | - | - | |
| Repr. 2;H36 | 1 | | | | |
| ahydrate | < 1 | 12179-04-3 215-540-4 | 01-2119490790-32 | 005-011-02-9 | |
| Eye Irrit. 2;H | 319, Repr. | 1B;H360D, Repr. 1E | 3;H360F | | |
| | D, SODIUM Repr. 2;H36 ahydrate | 80 - < 90 Acute Tox. 4;H302, ST 0, SODIUM 1 - < 3 Repr. 2;H361 ahydrate < 1 | 80 - < 90 | 80 - < 90 | 80 - < 90 $107-21-1$ $203-473-3$ $01-2119456816-28$ $603-027-00-1$ Acute Tox. 4;H302, STOT RE 2;H373 $01-2119456816-28$ $603-027-00-1$ $0, SODIUM$ $1 - < 3$ $19766-89-3$ $243-283-8$ $-$ Repr. 2;H361 $ -$ ahydrate< 1 |

List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).

M: M-factor

delayed

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

| General information | If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. |
|---|--|
| 4.1. Description of first aid meas | sures |
| Inhalation | Move to fresh air. Call a physician if symptoms develop or persist. |
| Skin contact | Wash off with soap and water. Get medical attention if irritation develops and persists. |
| Eye contact | Rinse with water. Get medical attention if irritation develops and persists. |
| Ingestion | Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell. |
| 4.2. Most important symptoms and effects, both acute and | Convulsions. Dizziness. Nausea, vomiting. Abdominal pain. Oedema. Prolonged exposure may cause chronic effects. |

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

| 0 0 | |
|--------------------------------|--|
| General fire hazards | No unusual fire or explosion hazards noted. |
| 5.1. Extinguishing media | |
| Suitable extinguishing media | Alcohol resistant foam. Powder. Carbon dioxide (CO2). |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |

| 5.2. Special hazards arising from the substance or mixture | During fire, gases hazardous to health may be formed. | | | |
|--|---|--|--|--|
| 5.3. Advice for firefighters | | | | |
| Special protective equipment for firefighters | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. | | | |
| Special fire fighting procedures | Move containers from fire area if you can do so without risk. | | | |
| Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials. | | | |
| SECTION 6. Applicatel release measures | | | | |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| For non-emergency personnel | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapour. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. | | |
|--|---|--|--|
| For emergency responders | Keep unnecessary personnel away. | | |
| 6.2. Environmental precautions | Avoid discharge into drains, water courses or onto the ground. | | |
| 6.3. Methods and material for containment and cleaning up | Use water spray to reduce vapours or divert vapour cloud drift. | | |
| | Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. | | |
| | Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. | | |
| | Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. | | |
| 6.4. Reference to other sections | For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS. | | |

SECTION 7: Handling and storage

| 7.1. Precautions for safe handling | Do not breathe mist or vapour. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. |
|---|--|
| 7.2. Conditions for safe storage, including any incompatibilities | Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). |
| 7.3. Specific end use(s) | Antifreeze or coolant |

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

| Components | Туре | Value | Form |
|-----------------------------------|------|-----------|--------------|
| Ethylene glycol (CAS 107-21-1) | STEL | 104 mg/m3 | Vapour. |
| | | 40 ppm | Vapour. |
| | TWA | 52 mg/m3 | Vapour. |
| | | 10 mg/m3 | Particulate. |
| | | 20 ppm | Vapour. |

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU Components Type Value

| Components | туре | Value | |
|--------------------------------|--|-----------|--|
| Ethylene glycol (CAS 107-21-1) | STEL | 104 mg/m3 | |
| | | 40 ppm | |
| | TWA | 52 mg/m3 | |
| | | 20 ppm | |
| ological limit values | No biological exposure limits noted for the ingredient(s). | | |

Biological limit values Recommended monitoring

procedures

Follow standard monitoring procedures.

| Derived no effect levels (DNELs) | Not available. |
|---|---|
| Predicted no effect concentrations (PNECs) | Not available. |
| Exposure guidelines | |
| UK EH40 WEL: Skin design | ation |
| Ethylene glycol (CAS 107 | 7-21-1) Can be absorbed through the skin. |
| 8.2. Exposure controls | |
| Appropriate engineering controls | Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. |
| Individual protection measures, | such as personal protective equipment |
| General information | Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. |
| Eye/face protection | Chemical respirator with organic vapour cartridge and full facepiece. |
| Skin protection | |
| - Hand protection | Wear appropriate chemical resistant gloves. |
| - Other | Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. |
| Respiratory protection | Chemical respirator with organic vapour cartridge and full facepiece. |
| Thermal hazards | Wear appropriate thermal protective clothing, when necessary. |
| Hygiene measures | Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. |
| Environmental exposure controls | Environmental manager must be informed of all major releases. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Appearance | |
|--|------------------------------|
| Physical state | Liquid. |
| Form | Liquid. |
| Colour | Dark blue Green. |
| Odour | Odourless. |
| Odour threshold | Not available. |
| рН | Not available. |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | 170 °C (338 °F) |
| Flash point | > 120.0 °C (> 248.0 °F) |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not applicable. |
| Upper/lower flammability or expl | osive limits |
| Flammability limit - lower (%) | Not available. |
| Flammability limit - upper (%) | Not available. |
| Vapour pressure | 0.12 hPa estimated |
| Vapour density | Not available. |
| Relative density | 1.122 |
| Relative density temperature | 20 °C (68 °F) |
| Solubility(ies) | |
| Solubility (water) | Not available. |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | 397.78 °C (748 °F) estimated |

| Decomposition temperature | Not available. |
|---------------------------|---|
| Viscosity | Not available. |
| Explosive properties | Not explosive. |
| Oxidising properties | Not oxidising. |
| 9.2. Other information | No relevant additional information available. |

SECTION 10: Stability and reactivity

| 10.1. Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport. |
|---|---|
| 10.2. Chemical stability | Material is stable under normal conditions. |
| 10.3. Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| 10.4. Conditions to avoid | Contact with incompatible materials. |
| 10.5. Incompatible materials | Strong oxidising agents. |
| 10.6. Hazardous decomposition products | No hazardous decomposition products are known. |

SECTION 11: Toxicological information

Occupational exposure to the substance or mixture may cause adverse effects.

| Information on likely routes of exposure | | |
|--|--|--|
| Inhalation | May cause damage to organs through prolonged or repeated exposure by inhalation. | |
| Skin contact | No adverse effects due to skin contact are expected. | |
| Eye contact | Direct contact with eyes may cause temporary irritation. | |
| Ingestion | Harmful if swallowed. | |
| Symptoms | Convulsions. Dizziness. Nausea, vomiting. Abdominal pain. Oedema. | |
| | | |

11.1. Information on toxicological effects

General information

| Acute toxicity | Harmful if swallowed. | |
|------------------------------|---|---|
| Components | Species | Test Results |
| 2-ETHYLHEXANOIC ACID, S | ODIUM SALT (CAS 19766-89-3) | |
| <u>Acute</u> | | |
| Dermal | | |
| LD50 | Rat | > 2000 mg/kg, 24 Hours |
| Oral | | |
| LD50 | Rat | 2043 mg/kg |
| Disodium tetraborate pentahy | drate (CAS 12179-04-3) | |
| <u>Acute</u> | | |
| Dermal | | |
| LD50 | Rabbit | > 1055 mg/kg |
| Inhalation | | |
| LC50 | Rat | > 0.002 mg/l, 4 Hours |
| Oral | | |
| LD50 | Rat | > 250 mg/kg |
| Ethylene glycol (CAS 107-21- | 1) | |
| <u>Acute</u> | | |
| Dermal | | |
| LD50 | Rabbit | 9530 mg/kg |
| Oral | | |
| LD50 | Rat | 5.89 g/kg |
| * Estimates for product m | ay be based on additional component da | ta not shown. |
| Skin corrosion/irritation | Due to partial or complete lack of d | ata the classification is not possible. |
| Serious eye damage/eye | Due to partial or complete lack of data the classification is not possible. | |

| irritation | |
|----------------------------------|---|
| Respiratory sensitisation | Due to partial or complete lack of data the classification is not possible. |
| Skin sensitisation | Due to partial or complete lack of data the classification is not possible. |
| Germ cell mutagenicity | Due to partial or complete lack of data the classification is not possible. |
| Carcinogenicity | Due to partial or complete lack of data the classification is not possible. |

| Reproductive toxicity | • | Due to partial or complete lack of data the classification is not possible. | | |
|--|---|---|-------------------------------------|--|
| Specific target organ toxicity - single exposure | Due to pa | Due to partial or complete lack of data the classification is not possible. | | |
| Specific target organ toxicity - repeated exposure | May cause | May cause damage to organs (kidney) through prolonged or repeated exposure. | | |
| Aspiration hazard | Due to pa | rtial or complete lack of data the clas | ssification is not possible. | |
| Mixture versus substance information | No inform | ation available. | | |
| Other information | Not availa | ble. | | |
| SECTION 12: Ecological i | nformatio | n | | |
| 12.1. Toxicity | | Based on available data, the classification criteria are not met for hazardous to the aquatic environment. | | |
| Product | | Species | Test Results | |
| Comma Xstream G48 | | | | |
| Aquatic | | | | |
| Fish | LC50 | Fish | 11336.9678 mg/l, 96 hours estimated | |
| Components | | Species | Test Results | |
| Disodium tetraborate pentahydrat | e (CAS 1217 | 79-04-3) | | |
| Aquatic | 1.050 | | | |
| Fish | LC50 | Western mosquitofish (Gambu | sia affinis) 104 mg/i, 96 nours | |
| Ethylene glycol (CAS 107-21-1) Aquatic | | | | |
| Fish | LC50 | Fathead minnow (Pimephales | promelas) 8050 mg/l, 96 hours | |
| * Estimates for product may b | be based on | additional component data not show | 'n. | |
| 12.2. Persistence and degradability | No data is available on the degradability of this product. | | | |
| 12.3. Bioaccumulative potential | | | | |
| Partition coefficient | | | | |
| n-octanol/water (log Kow) Ethylene glycol | | -1.36 | | |
| Bioconcentration factor (BCF) | Not availa | Not available. | | |
| 12.4. Mobility in soil | No data a | No data available. | | |
| 12.5. Results of PBT and vPvB assessment | Not a PBT | Not a PBT or vPvB substance or mixture. | | |
| 12.6. Other adverse effects | | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. | | |
| SECTION 13: Disposal co | nsideratio | ons | | |
| 13.1. Waste treatment methods | | | | |
| Residual waste | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: | | | |
| Contaminated packaging | Disposal instructions). Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. | | | |
| EU waste code | | The Waste code should be assigned in discussion between the user, the producer and the waste disposal company. | | |
| Disposal methods/information | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations. | | | |
| Special precautions | Dispose ir | n accordance with all applicable regu | llations. | |
| | | | | |

SECTION 14: Transport information

ADR

14.1. - 14.6.: Not regulated as dangerous goods.

RID

14.1. - 14.6.: Not regulated as dangerous goods.

ADN

14.1. - 14.6.: Not regulated as dangerous goods.

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ΙΑΤΑ

14.1. - 14.6.: Not regulated as dangerous goods.

IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

- Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended Not listed.
- Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not established.

- Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended Not listed.
- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended Not listed.
- Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Disodium tetraborate pentahydrate (CAS 12179-04-3)

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended Disodium tetraborate pentahydrate (CAS 12179-04-3)

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

| Directive 2012/18/EU on ma | ajor accident hazards involving dangerous substances, as amended |
|-------------------------------------|---|
| Not listed. | |
| Other regulations | The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended. The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. |
| National regulations | Follow national regulation for work with chemical agents. |
| | Follow national regulation on the protection of workers from the risks of exposure to carcinogens and mutagens at work, in accordance with Directive 2004/37/EC. |
| 15.2. Chemical safety assessment | No Chemical Safety Assessment has been carried out. |
| | |

SECTION 16: Other information

| List of abbreviations | Not available. |
|--|---|
| References | Not available. |
| Information on evaluation method leading to the classification of mixture | The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available. |
| Full text of any H-statements not written out in full under Sections 2 to 15 | H302 Harmful if swallowed. |

Revision information Training information Disclaimer H319 Causes serious eye irritation.
H360D May damage the unborn child.
H360F May damage fertility.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
Product and Company Identification: Alternate Trade Names
Follow training instructions when handling this material.
Moove Lubricants Itd. cannot anticipate all conditions under which this information and its product,

or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.