

# SAFETY DATA SHEET

Flux Rage F-35



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

### 1.1 Product identifier

**Product name** : Flux Rage F-35  
**Reference number** : GHS069  
**Product type** : Liquid.  
**Other means of identification** : Not applicable

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

### 1.3 Details of the supplier of the safety data sheet

AIM  
9100 Henri Bourassa East  
Montreal, QC  
H1E 2S4  
(514) 494-2000

AIM Solder Europe Sp. z.o.o.  
ul. Papiernicza 7  
Łódź 92-312  
Poland

**e-mail address of person responsible for this SDS** : Safetydata@aimsolder.com

### 1.4 Emergency telephone number

#### National advisory body/Poison Center

**Telephone number** : INFOTRAC  
Europe: 0800-181-29-24  
International: (352) 323-3500

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 3, H226  
Acute Tox. 4, H302  
Acute Tox. 3, H311  
Acute Tox. 3, H331  
Skin Irrit. 2, H315  
Eye Irrit. 2, H319  
Skin Sens. 1, H317  
Aquatic Chronic 4, H413

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

## SECTION 2: Hazards identification

### Hazard pictograms



### Signal word

: Danger

### Hazard statements

: Flammable liquid and vapor.  
Toxic in contact with skin or if inhaled.  
Harmful if swallowed.  
Causes serious eye irritation.  
Causes skin irritation.  
May cause an allergic skin reaction.  
May cause long lasting harmful effects to aquatic life.

### Precautionary statements

#### Prevention

: Wear protective gloves. Wear protective clothing. Wear eye or face protection.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking. Avoid release to the environment.

#### Response

: IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

#### Storage

: Store locked up.

#### Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

: Not applicable.

### Special packaging requirements

#### Containers to be fitted with child-resistant fastenings

: Not applicable.

#### Tactile warning of danger

: Not applicable.

### 2.3 Other hazards

#### Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

#### Other hazards which do not result in classification

: None known.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

: Mixture

| Product/ingredient name | Identifiers                    | %         | Regulation (EC) No. 1272/2008 [CLP]  | Type    |
|-------------------------|--------------------------------|-----------|--|---------|
| 2-butoxyethanol         | EC: 203-905-0<br>CAS: 111-76-2 | ≥25 - ≤50 | Acute Tox. 3, H301<br>Acute Tox. 3, H311<br>Acute Tox. 3, H331<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317<br>Aquatic Chronic 4, H413 | [1] [2] |
| rosin                   | EC: 232-475-7                  | ≥25 - ≤50 | Skin Sens. 1, H317   | [1]     |

Flux Rage F-35

### SECTION 3: Composition/information on ingredients

|          |   |      |  |         |
|----------|---|------|--|---------|
| methanol | CAS: 8050-09-7<br>Index: 650-015-00-7<br>EC: 200-659-6<br>CAS: 67-56-1<br>Index: 603-001-00-X | ≤2.7 | Aquatic Chronic 4, H413<br>Flam. Liq. 2, H225<br>Acute Tox. 3, H301<br>Acute Tox. 3, H311<br>Acute Tox. 3, H331<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>STOT SE 1, H370<br><br><b>See Section 16 for the full text of the H statements declared above.</b> | [1] [2] |
|----------|---|------|--|---------|

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

#### Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

Occupational exposure limits, if available, are listed in Section 8.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

## SECTION 4: First aid measures

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

### 4.2 Most important symptoms and effects, both acute and delayed

#### Over-exposure signs/symptoms

**Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

**Inhalation** : No specific data.

**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness

**Ingestion** : No specific data.

### 4.3 Indication of any immediate medical attention and special treatment needed

**Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Unsuitable extinguishing media** : Do not use water jet.

### 5.2 Special hazards arising from the substance or mixture

**Hazards from the substance or mixture** : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material may cause long lasting harmful effects to aquatic life. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous combustion products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
metal oxide/oxides

### 5.3 Advice for firefighters

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

- : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

### 6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

### 6.4 Reference to other sections

- : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### 7.2 Conditions for safe storage, including any incompatibilities

## SECTION 7: Handling and storage

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### Seveso Directive - Reporting thresholds (in tonnes)

#### Danger criteria

| Category  | Notification and MAPP threshold | Safety report threshold |
|-----------|---------------------------------|-------------------------|
| H2<br>P5c | 50<br>5000                      | 200<br>50000            |

### 7.3 Specific end use(s)

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

### 8.1 Control parameters

#### Occupational exposure limits

| Product/ingredient name | Exposure limit values   |
|-------------------------|---|
| 2-butoxyethanol         | <b>Regulation of the Minister of Family, Labor and Social Policy (J of Laws 2017, item 1348) (Poland, 7/2018). Absorbed through skin.</b><br>TWA: 98 mg/m <sup>3</sup> 8 hours.<br>STEL: 200 mg/m <sup>3</sup> 15 minutes.  |
| methanol                | <b>Regulation of the Minister of Family, Labor and Social Policy (J of Laws 2017, item 1348) (Poland, 7/2018). Absorbed through skin.</b><br>TWA: 100 mg/m <sup>3</sup> 8 hours.<br>STEL: 300 mg/m <sup>3</sup> 15 minutes. |

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

## SECTION 8: Exposure controls/personal protection

| Product/ingredient name | Type  | Exposure              | Value                  | Population         | Effects            |          |
|-------------------------|-------|-----------------------|------------------------|--------------------|--------------------|----------|
| 2-butoxyethanol         | DNEL  | Long term Oral        | 6.3 mg/kg bw/day       | General population | Systemic           |          |
|                         | DNEL  | Short term Oral       | 26.7 mg/kg bw/day      | General population | Systemic           |          |
|                         | DNEL  | Long term Inhalation  | 59 mg/m <sup>3</sup>   | General population | Systemic           |          |
|                         | DNEL  | Long term Dermal      | 75 mg/kg bw/day        | General population | Systemic           |          |
|                         | DNEL  | Short term Dermal     | 89 mg/kg bw/day        | General population | Systemic           |          |
|                         | DNEL  | Short term Dermal     | 89 mg/kg bw/day        | Workers            | Systemic           |          |
|                         | DNEL  | Long term Inhalation  | 98 mg/m <sup>3</sup>   | Workers            | Systemic           |          |
|                         | DNEL  | Long term Dermal      | 125 mg/kg bw/day       | Workers            | Systemic           |          |
|                         | DNEL  | Short term Inhalation | 147 mg/m <sup>3</sup>  | General population | Local              |          |
|                         | DNEL  | Short term Inhalation | 246 mg/m <sup>3</sup>  | Workers            | Local              |          |
|                         | DNEL  | Short term Inhalation | 426 mg/m <sup>3</sup>  | General population | Systemic           |          |
|                         | DNEL  | Short term Inhalation | 1091 mg/m <sup>3</sup> | Workers            | Systemic           |          |
|                         | rosin | DNEL                  | Long term Oral         | 10 mg/kg bw/day    | General population | Systemic |
|                         |       | DNEL                  | Long term Dermal       | 10 mg/kg bw/day    | General population | Systemic |
| DNEL                    |       | Long term Dermal      | 17 mg/kg bw/day        | Workers            | Systemic           |          |
| DNEL                    |       | Long term Inhalation  | 35 mg/m <sup>3</sup>   | General population | Systemic           |          |
| DNEL                    |       | Long term Inhalation  | 117 mg/m <sup>3</sup>  | Workers            | Systemic           |          |
| methanol                |       | DNEL                  | Short term Dermal      | 8 mg/kg bw/day     | General population | Systemic |
|                         | DNEL  | Long term Dermal      | 8 mg/kg bw/day         | General population | Systemic           |          |
|                         | DNEL  | Short term Dermal     | 40 mg/kg bw/day        | Workers            | Systemic           |          |
|                         | DNEL  | Long term Dermal      | 40 mg/kg bw/day        | Workers            | Systemic           |          |
|                         | DNEL  | Short term Inhalation | 50 mg/m <sup>3</sup>   | General population | Local              |          |
|                         | DNEL  | Long term Inhalation  | 50 mg/m <sup>3</sup>   | General population | Local              |          |
|                         | DNEL  | Short term Inhalation | 50 mg/m <sup>3</sup>   | General population | Systemic           |          |
|                         | DNEL  | Long term Inhalation  | 50 mg/m <sup>3</sup>   | General population | Systemic           |          |
|                         | DNEL  | Short term Inhalation | 260 mg/m <sup>3</sup>  | Workers            | Local              |          |
|                         | DNEL  | Long term Inhalation  | 260 mg/m <sup>3</sup>  | Workers            | Local              |          |
|                         | DNEL  | Short term Inhalation | 260 mg/m <sup>3</sup>  | Workers            | Systemic           |          |
|                         | DNEL  | Long term Inhalation  | 260 mg/m <sup>3</sup>  | Workers            | Systemic           |          |

### PNECs

No PNECs available.

## SECTION 8: Exposure controls/personal protection

### 8.2 Exposure controls

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

#### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

#### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

**Physical state** : Liquid.  
**Color** : Not available.  
**Odor** : Not available.  
**Odor threshold** : Not available.  
**pH** : Not available.  
**Melting point/freezing point** : Not available.



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## SECTION 9: Physical and chemical properties

|   |                      |
|---|----------------------|
| <b>Initial boiling point and boiling range</b>      | : Not available.     |
| <b>Flash point</b>                                  | : Closed cup: 41.5°C |
| <b>Evaporation rate</b>                             | : Not available.     |
| <b>Flammability (solid, gas)</b>                    | : Not available.     |
| <b>Upper/lower flammability or explosive limits</b> | : Not available.     |
| <b>Vapor pressure</b>                               | : Not available.     |
| <b>Vapor density</b>                                | : Not available.     |
| <b>Relative density</b>                             | : Not available.     |
| <b>Solubility(ies)</b>                              | : Not available.     |
| <b>Partition coefficient: n-octanol/ water</b>      | : Not available.     |
| <b>Auto-ignition temperature</b>                    | : Not available.     |
| <b>Decomposition temperature</b>                    | : Not available.     |
| <b>Viscosity</b>                                    | : Not available.     |
| <b>Explosive properties</b>                         | : Not available.     |
| <b>Oxidizing properties</b>                         | : Not available.     |

### 9.2 Other information

**Solubility in water** : Not available.

No additional information.

## SECTION 10: Stability and reactivity

|  |   |
|--|---|
| <b>10.1 Reactivity</b>                         | : No specific test data related to reactivity available for this product or its ingredients.  |
| <b>10.2 Chemical stability</b>                 | : The product is stable.  |
| <b>10.3 Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.   |
| <b>10.4 Conditions to avoid</b>                | : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. |
| <b>10.5 Incompatible materials</b>             | : Reactive or incompatible with the following materials:<br>oxidizing materials   |
| <b>10.6 Hazardous decomposition products</b>   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced.  |

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

## SECTION 11: Toxicological information

| Product/ingredient name                  | Result               | Species | Dose        | Exposure |
|--|----------------------|---------|-------------|----------|
| 2-butoxyethanol<br><br>rosin<br>methanol | LC50 Inhalation Gas. | Rat     | 450 ppm     | 4 hours  |
|  | LD50 Dermal          | Rabbit  | 220 mg/kg   | -        |
|  | LD50 Oral            | Mouse   | 1230 mg/kg  | -        |
|  | LD50 Oral            | Rabbit  | 300 mg/kg   | -        |
|  | LD50 Oral            | Rat     | 250 mg/kg   | -        |
|  | LD50 Oral            | Rat     | 470 mg/kg   | -        |
|  | LD50 Oral            | Rat     | 7600 mg/kg  | -        |
|  | LC50 Inhalation Gas. | Rat     | 145000 ppm  | 1 hours  |
|  | LC50 Inhalation Gas. | Rat     | 64000 ppm   | 4 hours  |
|  | LD50 Dermal          | Rabbit  | 15800 mg/kg | -        |
|  | LD50 Dermal          | Rabbit  | 15800 mg/kg | -        |
|  | LD50 Oral            | Mouse   | 7300 mg/kg  | -        |
|  | LD50 Oral            | Rabbit  | 14200 mg/kg | -        |
|  | LD50 Oral            | Rat     | 5600 mg/kg  | -        |
|  | LD50 Oral            | Rat     | 6200 mg/kg  | -        |
|  | LDLo Dermal          | Monkey  | 393 mg/kg   | -        |
|  | LDLo Oral            | Dog     | 7500 mg/kg  | -        |

**Conclusion/Summary** : Not available.

### Acute toxicity estimates

| Route               | ATE value    |
|---------------------|--------------|
| Oral                | 639.39 mg/kg |
| Dermal              | 395.05 mg/kg |
| Inhalation (vapors) | 5.33 mg/l    |

### Irritation/Corrosion

| Product/ingredient name         | Result                   | Species | Score | Exposure        | Observation |
|---------------------------------|--------------------------|---------|-------|-----------------|-------------|
| 2-butoxyethanol<br><br>methanol | Eyes - Moderate irritant | Rabbit  | -     | 24 hours 100 mg | -           |
|                                 | Eyes - Severe irritant   | Rabbit  | -     | 100 mg          | -           |
|                                 | Skin - Mild irritant     | Rabbit  | -     | 500 mg          | -           |
|                                 | Eyes - Moderate irritant | Rabbit  | -     | 24 hours 100 mg | -           |
|                                 | Eyes - Moderate irritant | Rabbit  | -     | 40 mg           | -           |
|                                 | Skin - Moderate irritant | Rabbit  | -     | 24 hours 20 mg  | -           |

**Conclusion/Summary** : Not available.

### Sensitization

**Conclusion/Summary** : Not available.

### Mutagenicity

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Specific target organ toxicity (single exposure)

| Product/ingredient name | Category   | Route of exposure | Target organs  |
|-------------------------|------------|-------------------|----------------|
| methanol                | Category 1 | Not determined    | Not determined |

### Specific target organ toxicity (repeated exposure)

Not available.

## SECTION 11: Toxicological information

### Aspiration hazard

| Product/ingredient name             | Result                         |
|-------------------------------------|--------------------------------|
| Naphtha (petroleum), heavy alkylate | ASPIRATION HAZARD - Category 1 |

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Toxic if inhaled.
- Skin contact** : Toxic in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Potential chronic health effects

Not available.

- Conclusion/Summary** : Not available.
- General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

**Other information** : To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.  
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are

Flux Rage F-35

## SECTION 11: Toxicological information

the only hazards that exist.

## SECTION 12: Ecological information

### 12.1 Toxicity

| Product/ingredient name | Result                               | Species                               | Exposure |
|-------------------------|--------------------------------------|---------------------------------------|----------|
| 2-butoxyethanol         | Acute EC50 >1000 mg/l Fresh water    | Daphnia - Daphnia magna               | 48 hours |
|                         | Acute LC50 800000 µg/l Marine water  | Crustaceans - Crangon crangon         | 48 hours |
|                         | Acute LC50 1250000 µg/l Marine water | Fish - Menidia beryllina              | 96 hours |
| methanol                | Acute EC50 16.912 mg/l Marine water  | Algae - Ulva pertusa                  | 96 hours |
|                         | Acute LC50 2500000 µg/l Marine water | Crustaceans - Crangon crangon - Adult | 48 hours |
|                         | Acute LC50 3289 mg/l Fresh water     | Daphnia - Daphnia magna - Neonate     | 48 hours |
|                         | Acute LC50 290 mg/l Fresh water      | Fish - Danio rerio - Egg              | 96 hours |
|                         | Chronic NOEC 9.96 mg/l Marine water  | Algae - Ulva pertusa                  | 96 hours |

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

**Conclusion/Summary** : Not available.

### 12.3 Bioaccumulative potential

| Product/ingredient name | LogP <sub>ow</sub> | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| 2-butoxyethanol         | 0.81               | -   | low       |
| rosin                   | 1.9 to 7.7         | -   | high      |
| methanol                | -0.77              | <10 | low       |

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.









**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

#### Packaging

## SECTION 13: Disposal considerations

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

|  | ADR/RID  | ADN  | IMDG  | IATA   |
|--|--|--|---|--|
| <b>14.1 UN number</b>                  | UN1992   | UN1992   | UN1992  | UN1992   |
| <b>14.2 UN proper shipping name</b>    | FLAMMABLE LIQUID, TOXIC, N.O.S<br>Petroleum Distillates / Ethylene glycol monobutyl ether  | FLAMMABLE LIQUID, TOXIC, N.O.S<br>Petroleum Distillates / Ethylene glycol monobutyl ether  | FLAMMABLE LIQUID, TOXIC, N.O.S<br>Petroleum Distillates / Ethylene glycol monobutyl ether   | FLAMMABLE LIQUID, TOXIC, N.O.S<br>Petroleum Distillates / Ethylene glycol monobutyl ether  |
| <b>14.3 Transport hazard class(es)</b> | 3 (6.1)<br>  | 3 (6.1)<br>  | 3 (6.1)<br>  | 3 (6.1)<br>  |
| <b>14.4 Packing group</b>              | III  | III  | III   | III  |
| <b>14.5 Environmental hazards</b>      | No.  | No.  | No.   | No.  |
| <b>Additional information</b>          | <b>Tunnel code</b> (D/E)   | -  | -   | -  |

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

## SECTION 15: Regulatory information

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

[EU Regulation \(EC\) No. 1907/2006 \(REACH\)](#)

[Annex XIV - List of substances subject to authorization](#)

[Annex XIV](#)

None of the components are listed.

[Substances of very high concern](#)

None of the components are listed.

## SECTION 15: Regulatory information

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

### Other EU regulations

**Europe inventory** : All components are listed or exempted.

### Ozone depleting substances (1005/2009/EU)

Not listed.

### Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

### Seveso Directive

This product is controlled under the Seveso Directive.

### Danger criteria

#### Category

H2  
P5c

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### International lists

#### National inventory

- Australia** : All components are listed or exempted.  
**Canada** : All components are listed or exempted.  
**China** : All components are listed or exempted.  
**Japan** : **Japan inventory (ENCS)**: Not determined.  
**Japan inventory (ISHL)**: Not determined.  
**Malaysia** : Not determined  
**New Zealand** : All components are listed or exempted.  
**Philippines** : All components are listed or exempted.  
**Republic of Korea** : All components are listed or exempted.  
**Taiwan** : All components are listed or exempted.  
**Turkey** : Not determined.  
**United States** : All components are listed or exempted.

**15.2 Chemical Safety Assessment** : This product contains substances for which Chemical Safety Assessments are still required.

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

### Abbreviations and acronyms

: ATE = Acute Toxicity Estimate  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DMEL = Derived Minimal Effect Level  
 DNEL = Derived No Effect Level  
 EUH statement = CLP-specific Hazard statement  
 PBT = Persistent, Bioaccumulative and Toxic  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number  
 vPvB = Very Persistent and Very Bioaccumulative

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification   | Justification   |
|--|---|
| Flam. Liq. 3, H226<br>Acute Tox. 4, H302<br>Acute Tox. 3, H311<br>Acute Tox. 3, H331<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317<br>Aquatic Chronic 4, H413 | On basis of test data<br>Calculation method<br>Calculation method<br>Calculation method<br>Calculation method<br>Calculation method<br>Calculation method<br>Calculation method |

### Full text of abbreviated H statements

|      |   |
|------|---|
| H225 | Highly flammable liquid and vapor.                      |
| H226 | Flammable liquid and vapor.                             |
| H301 | Toxic if swallowed.                                     |
| H302 | Harmful if swallowed.                                   |
| H311 | Toxic in contact with skin.                             |
| H315 | Causes skin irritation.                                 |
| H317 | May cause an allergic skin reaction.                    |
| H319 | Causes serious eye irritation.                          |
| H331 | Toxic if inhaled.                                       |
| H370 | Causes damage to organs.                                |
| H413 | May cause long lasting harmful effects to aquatic life. |

### Full text of classifications [CLP/GHS]

|                         |   |
|-------------------------|---|
| Acute Tox. 3, H301      | ACUTE TOXICITY (oral) - Category 3                            |
| Acute Tox. 3, H311      | ACUTE TOXICITY (dermal) - Category 3                          |
| Acute Tox. 3, H331      | ACUTE TOXICITY (inhalation) - Category 3                      |
| Acute Tox. 4, H302      | ACUTE TOXICITY (oral) - Category 4                            |
| Aquatic Chronic 4, H413 | AQUATIC HAZARD (LONG-TERM) - Category 4                       |
| Eye Irrit. 2, H319      | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2               |
| Flam. Liq. 2, H225      | FLAMMABLE LIQUIDS - Category 2                                |
| Flam. Liq. 3, H226      | FLAMMABLE LIQUIDS - Category 3                                |
| Skin Irrit. 2, H315     | SKIN CORROSION/IRRITATION - Category 2                        |
| Skin Sens. 1, H317      | SKIN SENSITIZATION - Category 1                               |
| STOT SE 1, H370         | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 |

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### Notice to reader

## SECTION 16: Other information

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.